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Editorial

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2012 Trends and Statistics for Prescription Medications in the United States: CNS Therapeutics Continue to Hold Leading Positions

Three months ago, we reviewed the top prescription drugs globally in 2012, as only global statistics were available.[1,2] IMS Health recently released data on 2012 statistics for prescription medications in the United States, and once again we are summarizing the key trends and data.[1−5] While global prescription drug sales increased 1.8% in 2012 to $856.1 billion, United States sales (listed as U.S. nondiscounted spending) actually witnessed a 1% decrease to $325.8 billion ($329.2 billion in 2011). Moreover, this was the first decline in sales/spending in the past 5 years, where United States sales generally increase ∼5% each year (2008−2011).[1] As mentioned in the global sales overview, patent expirations had tremendous impact, especially in the case of the statin class, ie., Lipitor. Similar to the global data, five to the top ten United States prescription drugs are biologics, but the top five are small molecules (Table 1, Figure 1). Of the small molecules, two are CNS therapeutics: Abilify ranks number 2 ($5.9 billion, 11% growth over 2011), and Cymbalta ranks number 5 ($4.7 billion, 20% growth over 2011). The number one prescription drug in the United States was the proton pump (H^+/K^+ ATPase) inhibitor Nexium ($6.0 billion, reflecting an actual ∼7% loss over 2011). Rounding out the top five was the statin Crestor ($5.1 billion) and the asthma/COPD therapeutic Advair ($4.9 billion, 0.3% growth over 2011). As with the global list, the remaining drugs in the top 10 are biologics: AbbVie's Humira (monoclonal antibody for TNFα, number 6, $4.6 billion), Amgen's Enbrel (monoclonal antibody for TNFα number 7, $4.3 billion), Johnson & Johnson/Merck's Remicade (monoclonal antibody for TNFα number 8, $3.9 billion), Teva's Copaxone (an immunomodulator agent to treat multiple sclerosis number 9, $3.6 billion), and Amgen's Neulasta (a PEGylated version of granulocyte colony-stimulating factor number 10, $3.5 billion).[1,2] Overall, Americans made over 25 pharmaceutical products "blockbusters", with United States sales/spending exceeding $2 billion.

Table 1. Top 20 United States Prescription Drugs in Terms of Sales/Nondiscounted Spending in 2012[1]

rank	product	sales (US$Bn)
1	Nexium	6.0
2	Abilify	5.9
3	Crestor	5.1
4	Advair Diskus	4.9
5	Cymbalta	4.7
6	Humira	4.6
7	Enbrel	4.3
8	Remicade	3.9
9	Copaxone	3.6
10	Neulasta	3.5
11	Singulair	3.3
12	Rituxan	3.2
13	Plavix	3.0
14	Atriplar	2.9
15	Spiriva	2.8
16	Oxycontin	2.8
17	Januvia	2.7
18	Avastin	2.7
19	Lantus	2.3
20	Truvada	2.3

The top therapeutic classes, by nondiscounted spending in 2012, varied widely from their rankings in 2011, and are distinct from the global rankings (Table 2).[1,2] Last year, oncology ranked number one, with United States sales of $25.9 billion, followed by mental health ($23.5 billion), respiratory agents ($22.1 billion), antidiabetic ($22.0 billion), and pain ($18.2 billion). Overall, CNS held three of the top 10 positions: mental health (number 2), pain (number 5), and ADHD (number 10). However, while ADHD spending increased ∼11% over 2011, spending on pain medications remained constant, while bucketed mental health saw a 21% decrease. Despite this negative news, autoimmune diseases grew 15.1% ($14.8 billion), while antidiabetic ($22.0 billion) and oncology ($25.9 billion) classes grew >6.9%.[1] The impact of the loss of Lipitor continued to be felt in 2012, with lipid regulators showing the greatest loss over 2011 of 27%. Interestingly, the top 10 therapeutic classes highlighted in Table 2 accounted for 54.9% of all nondiscounted spending in the United States in 2012.[1,2]

Due to multiple patent expirations over the last several years, the top therapeutic classes in terms of spending/sales in the United States (Table 2) bears little resemblance to the top therapeutic classes in terms of dispensed prescriptions in the United States in 2012 (Table 3).[1,2] Overall, >4 billion prescriptions were dispensed in 2012, a number only slightly increased (∼1.2%) over 2011 numbers, and antihypertensives held the top spot with 656 million prescriptions dispensed. As compiled by IMS Health,[1] once again CNS therapeutics hold four of the top ten spots in terms of prescriptions dispensed in 2012: pain (number 2, 472 million, 1.5% increase over 2011), mental health (329 million, 3% increase over 2011), other CNS (number 6, 189 million, no increase over 2011) and nervous systems disorders (number 10, 156 million, 15% increase over 2011). CNS therapeutics accounted for 28% of all prescriptions dispensed in the United States.[1] When looking at the trends, the American lifestyle of poor diet and negative work−life balance has led to a society dependent on antihtpertensives, lipid regulators, antidiabetics, and numerous antidepressants, pain medications, and mood regulators.

Beyond therapeutic classes, IMS Health also compiled the top medicines by dispensed prescriptions in 2012 (Table 4), and based on the data in Table 3 it is no surprise that that the top medicines prescribed are for pain, hypertension, antiulcerants, and lipid regulators; moreover, the majority are for generic

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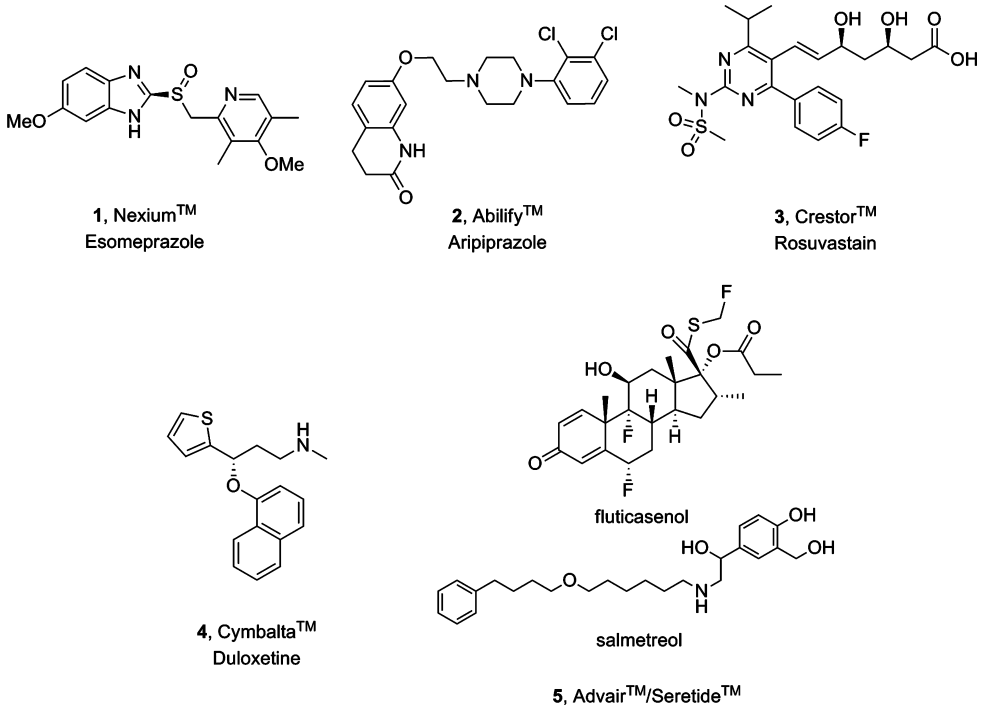

Figure 1. Structures of the top selling small molecule drugs of 2012 in the United States.

Table 2. Top 10 Therapeutic Classes the United States in 2012 in Terms of Spending/Sales[1]

rank	therapeutic class	sales (US$Bn)	% growth
1	oncologics	25.9	+7.3
2	mental health	23.5	−21
3	respiratory agents	22.1	+1.9
4	antidiabetics	22.0	+6.9
5	pain	18.2	+1.7
6	lipid regulators	16.9	−27
7	autoimmune disorders	14.8	+15.6
8	antiphypertentsives	13.6	−2.9
9	HIV/AIDs	11.7	+12
10	ADHD	10.4	+11.6

Table 3. Top 10 Therapeutic Classes in the United States in 2012 in Terms of Prescriptions Dispensed[1]

rank	therapeutic class	prescriptions dispensed (millions)	% growth
1	antihypertensives	656	+0.5
2	pain	472	+1.5
3	mental health	329	+2.8
4	antibacterials	268	−2.2
5	lipid regulators	255	0
6	other CNS	189	+0.5
7	antidiabetics	174	+0.5
8	respiratory agents	159	+3.8
9	antiulcerants	157	+4.5
10	nervous systems disorders	156	+5.2

versions of Vicodin, Zocor, Lipitor, and Prilosec.[1] With generic atorvastatin (Lipitor) becoming available for the full year in 2012, prescriptions increased >21% over 2011, with a concomitant decrease in simavastatin (Zocor) prescriptions dispensed (11.1%).

Table 4. Top 10 Medicines in the United States in 2012 in Terms of Prescriptions Dispensed[1]

rank	medicine	prescriptions dispensed (millions)	% growth
1	hydrocodone-acetaminophen	135.3	−1.1
2	levothyroxine sodium	107.5	+2.7
3	lisinopril	90.8	+2.3
4	simvastatin	86.1	−11.1
5	metoprolol	78.1	+2.4
6	amlodipine	66.0	+5.4
7	omeprazole	65.7	+9.6
8	metformin	61.6	+4.1
9	salbutamol	61.5	+7.5
10	atorvastain	54.9	+21.2

Due to patent expirations that impacted 2012 pharmaceutical sales in the United States, the rankings of the top pharmaceutical companies in terms of United States discounted spending was also dramatically different in 2012 than in 2011 (Table 5), and different than the global rankings.[1,2] Novartis

Table 5. Top 10 Pharmaceutical Corporations in the United States in 2012 in Terms of Nondiscounted Spending[1]

rank	company	sales (US$Bn)
1	Novartis	20.0
2	Merck & Co.	19.8
3	Pfizer	18.2
4	AstraZeneca	17.3
5	Teva Roche	16.3
6	Roche	15.4
7	GlaxoSmithKline (GSK)	14.1
8	Eli Lilly	14.0
9	Amgen	13.9
10	Abbott (AbbVie)	12.5

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captured the top position with in the United States (as well as globally) with sales of $20 billion, followed by Merck & Co. ($19.8 billion), Pfizer ($18.2 billion), Astrazeneca ($17.3 billion), Teva ($16.3 billion), and Roche ($16.3 billion). Pfizer, which was number 1 in the United States during 2008−2011, saw a 30% loss in sales/United States spending in 2012, due to the loss of patent protection of Lipitor, while Novartis and Merck & Co. noted no change in sales/spending versus 2011.[1]

One final statistic worth mentioning is in regard to payment type for the dispensed prescriptions in the United States in 2012. Commercial third-party insurers accounted for 58.6% of the >4 billion prescriptions, while Medicare part D and Medicaid made up 33% and 8.3% of Americans paid cash (a number that has remained constant over the past 5 years).[1] Overall, CNS drugs performed exceptionally well in 2012, holding three spots in the top 10 United States pharmaceutical products, and representing two of only five small molecule therapeutics in the top 10, as well as four of the top 10 therapeutic classes. Patent expirations and generic competition had a major impact on the top prescription drugs in 2012, and biologics holding five of the top 10 spots. With more patent expirations looming in 2013/2014 for top selling drugs, it will be interesting to see the impact in next year's data.

Craig W. Lindsley, Editor-in-Chief

AUTHOR INFORMATION

Notes

Views expressed in this editorial are those of the author and not necessarily the views of the ACS.

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