ACS Chemical Neuroscience
Editorial
pubs.acs.org/chemneuro

2014 Prescription Medications in the United States: Tremendous Growth, Specialty/Orphan Drug Expansion, and Dispensed Prescriptions Continue to Increase

The IMS Institute for Healthcare Informatics recently posted a comprehensive treatise that reviewed the use of prescription medicines in the United States in 2014.[1] If a single word could be used to describe 2014, it would be "*growth*". The year 2014 witnessed the largest growth in spending on prescription medications since 2001, driven by new drugs for hepatitis, multiple sclerosis, and cancer, and in concert with fewer patent expirations.[1] While global prescription drug sales in 2014 posted an impressive 8.8% growth over 2013,[2] sales in the United States increased by 13.1% in 2014 at $373.9 billion (compare to $329.3 billion in 2013).[1−4] Once again, the United States accounts for ∼40% of global prescription drug sales ($936.5 billion in 2014),[1−4] despite a population of only 317 million (world population in 2014 estimated at 7.1 billion) or <4%. Prescriptions dispensed also continued the growth trend, with 4 327 000 prescriptions dispensed in the United States in 2014, ∼100 million more than in 2013.[1] Overall, trends remained fairly constant over the past 12 months, with the exception of the Hepatitis C revolution and Sovaldi. In the United States in 2013, Sovaldi sales approached ∼$100 million. In 2014, Sovaldi was the top prescription drug, with 2014 sales of $7.9 billion (>20 000% growth)! The antipsychotic Abilify, which held the number 1 spot in 2013, slipped to number 2 with sales of $7.8 billion, representing a significant (∼20%) increase over 2013 sales ($6.5 billion).[1] Interesting, global Abilify sales were $9.2 billion, and thus, the United States accounts for >80% of sales. Table 1 highlights the top 20 prescription drugs in the United States based on nondiscounted spending.[1] It is important to point out that the global data is quite different from that of the United States.[2−4] In 2014, the United States consumer market made blockbuster status of over 40 drugs (sales exceeding $1 billion).

Table 1. Top 20 Prescription Drugs in 2014 in Terms of Sales in the United States[1]

rank	product	sales (US $Bn)
1	Sovaldi	7.9
2	Abilify	7.8
3	Humira	7.3
4	Nexium	5.9
5	Crestor	5.8
6	Enbrel	5.5
7	Advair Diskus	4.8
8	Remicade	4.5
9	Lantus SoloSTAR	4.5
10	Copaxone	3.9
11	Neulasta	3.8
12	Rituxan	3.5
13	Januiva	3.5
14	Lantus	3.4
15	Spiriva HandiHaler	3.3
16	Lyrica	3.1
17	Atripla	3.0
18	Avastin	2.9
19	Tecfidera	2.6
20	Truvada	2.5

The top therapeutic classes in the United States in 2014 (Table 2) differed from the global rankings.[1−4] In 2014, the top five therapy areas in the United States were oncology ($32.6 billion, ∼14% increase over 2013), antidiabetes ($32.3 billion, ∼23% increase over 2013), mental health ($23.1 billion, no growth over 2013), autoimmune ($22.2 billion, ∼19% increase over 2013), and respiratory ($22.0 billion, ∼7% increase over 2013).[1] The impact of Sovaldi impacted viral hepatitis products, landing at the 10th position with $12.3 billion in sales (∼154% increase over 2013).[1] Other notable areas included multiple sclerosis (8th, $13.8 billion), ADHD (11th, $10.1 billion), and nervous system disorders (13th, $9.5 billion). Overall CNS medications accounted for $78.8 billion (∼21%) of prescription medication sales in the United States last year.[1] Almost a quarter of the total drug sales in 2014 targeting CNS therapeutics.

Table 2. Top 20 Therapeutic Classes in United States in 2014 in Terms of Sales[1]

rank	therapy area	sales ($ Bn)
1	oncology	32.6
2	antidiabetes	32.3
3	mental health	23.1
4	autoimmune	22.2
5	respiratory	22.0
6	pain	20.4
7	HIV antivirals	14.3
8	multiple sclerosis	13.8
9	lipid regulators	13.7
10	viral hepatitis products	12.3
11	antihypertensives	12.0
12	ADHD	10.1
13	nervous system disorders	9.5
14	dermatologics	9.5
15	antiulcerants	9.3
16	anticoagulants	8.5
17	antibacterials	8.0
18	vaccines excl. flu	6.8
19	other cardiovasculars	6.3
20	ophthamology	6.3

The most prescribed medications share no resemblance to either the top selling drugs or the top therapeutic classes. In 2014, the most prescribed drug was levothyroxine (199.9 million prescriptions), a synthetic thyroid hormone, and generic statins, atorvastatin and simvastatin, ranked highly as well, 80.7 million

Published: June 17, 2015

DOI: 10.1021/acschemneuro.5b00148
ACS Chem. Neurosci. 2015, 6, 811−812

and 72.8 million prescriptions, respectively.[1] Retail and mail order dominated the dispensing locations in 2014, and branded medications accounted for 71.7% of United States sales, while unbranded generics accounted for 17.3% and branded generics only 11.1%.[1] In addition, the top therapeutic classes based on number of prescriptions dispensed (Table 3) was different from the rankings based on sales (Table 2). CNS was well represented here, holding three of the top 10 spots: #2 mental health (537 million prescriptions), #3 pain (480 million prescriptions), and #7 nervous system disorders (179 million prescriptions).[1] Antihypertensives held the top spot with 705 million prescriptions dispensed.[1]

Table 3. Top 20 Therapeutic Classes in United States in 2014 in Terms of Prescriptions Dispensed[1]

rank	therapy area	dispensed prescriptions (millions)
1	antihypertensives	705
2	mental health	537
3	pain	480
4	anitbacterial	267
5	lipid regulator	263
6	antidiabetic	201
7	nervous system disorders	179
8	antiulcerants	170
9	respiratory	169
10	thyroid therapies	131
11	dermatologics	109
12	hormonal contraceptives	97
13	ADHD	83
14	anticoagulants	78
15	corticosteroids	65
16	GI products	61
17	nasal preps topical	56
18	other cardiovasculars	49
19	ophthamology	44
20	sex hormones	43

The year 2014 was not only the year of growth, but also one of transformation—as industry changed the way it approach disease treatment and therapeutic discovery and development. As discussed previously,[1−4] 42 new medicines launched in 2014 (the most since 2001), with 18 as orphan indications, indicating a move toward specialty products where pharmacoeconomics enables higher price tags.[1−5] Indeed, of the 18 orphan drugs launched in 2014, 9 of them target disease where patient populations are less than 10 000.[1] The other major change reflects new brands of existing drugs with improved dosing. Finally, major strides were made for biologics. In 2009, the Biologics Price Competition and Innovation Act (BPCIA) created the biosimilar pathway, and in 2014 the first biosimilar applications were filed.[1]

Sales ($373.9 billion) and prescriptions filled (4 327 000) in the United States reached new heights in 2014, signaling a healthy and strong pharmaceutical industry, as well as willing payers and patients. Sovaldi paved the way for a surge in hepatitis C therapies, and CNS drugs were well represented in terms of top selling drugs (Abilify #2) as well as in terms of therapeutic class sales and prescriptions dispensed. Big Pharma take note, and return to CNS drug discovery—there is tremendous unmet medical need, and the sales to support it.

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.

REFERENCES

(1) Aitken, M., Kleinrock, M., Lyle, J., Nass, D., and Caskey, L. (2015) Medicines use and spending shifts: A review of the use of medicines in the U.S. in 2014, IMS Institute for Healthcare Informatics, www.imshealth.com.

(2) Lindsley, C. W. (2015) 2014 Global prescription medication statistics: Strong growth and CNS well represented. *ACS Chem. Neurosci. 6*, 505−506.

(3) Lindsley, C. W. (2015) Trends and statistics for prescription medications in the United States: CNS highly ranked and record prescriptions dispensed. *ACS Chem. Neurosci. 6*, 356−357.

(4) IMS Institute for Healthcare Informatics. See www.imshealth.com.

(5) Lindsley, C. W. (2014) Pharmacoeconomics and the medicinal chemist. *ACS Med. Chem. Lett. 5*, 1066−1068.

DOI: 10.1021/acschemneuro.5b00148
ACS Chem. Neurosci. 2015, 6, 811−812