

Malaysia's medicine prices shown to be high

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MEDBELLE, a digital healthcare platform founded in the United Kingdom in 2016, released a study on 21 November 2019 revealing findings on medicine price comparison across 50 selected countries based on 13 prevalent pharmaceutical compounds. Malaysia is one of the countries studied.

The study is termed as “Medicine Price Index 2019”, whereby the researchers collected price information for the selected branded (originator) and generic medicines from online pharmacies, governmental websites and information portals from the 50 countries around the world.¹ The price data were compared on a dollar-for-dollar basis, and the dosage size of the medication was also normalised for the purpose. The global median price for each compound was then calculated, and compared with the average prices in each country. From this, the percentage of medication cost deviation from the global median was obtained. This study places Malaysia as the country with the third least expensive medication costs among the 50 countries.

This publication arrived at a time when the Ministry of Health Malaysia is planning to establish a medicine price regulation policy which aims at setting the ceiling rates for wholesale and retail prices of single-sourced pharmaceutical products. Most pharmaceutical industry stakeholders have voiced strong objections. One of the common arguments they advance is that medicine prices in Malaysia are already competitive.

The Medbelle study provides a glimpse of evidence on whether this claim can be substantiated when prices in Malaysia are compared with those in a wide range of economies. According to the study, average prices of branded medicines and overall medicines in Malaysia have -89.67% and -90.80% deviation respectively from the global median price. In other words, the study seemed to conclude that medicine prices in Malaysia are about one-tenth of the global median price. But is that true?

Our analysis based on the average pricing data shown for the 13 compounds tells a different story. We scrutinised the deductions and conclusions made by Medbelle on Malaysian medicine prices to determine whether these were based on correct methodology and proper calculation. Fortunately, Medbelle has been transparent in providing the average price breakdown for each compound (price per dose, standardised in USD) for all 50 countries if they are available. This allowed us to re-examine and analyse the medicine pricing data.

¹ See “Methodology” section: <https://www.medbelle.com/medicine-price-index-usa>

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We looked at the 50-country average medicine prices for each compound and ranked them separately for branded and generic medicines (see Appendix). Since it is a multi-country comparative study, we took the average price from the median (ranked) country and compared this with its Malaysian counterpart (Table 1). For each compound category, the positive numbers in red show the extent to which the Malaysian average price is above the median country price, while the negative numbers in blue show the extent to which the Malaysian average price is below the price in the median country. We also include the original Medbelle calculation on the percentage deviation from the global median price, for the purpose of comparison.

Table 1: Deviation of Malaysian average medicine price for each compound in relation to the global median price

	Condition/Compound	Branded	Generic	Medbelle's Calculation of % Deviation from Global Median
1	Erectile Dysfunction (Sildenafil)	48.5%	53.3%	61.04%
2	Epilepsy, Fibromyalgia, Generalised Anxiety Disorder, Among Others (Pregabalin)	59.0%	186.1%	132.49%
3	Cardiovascular Disease, High Cholesterol (Atorvastatin)	38.9%	165.0%	115.01%
4	Asthma, Chronic Obstructive Pulmonary Disease (Salbutamol)	15.3%	-16.8%	5.06%
5	Bacterial Infection (Azithromycin)	no data	-63.4%	-76.63%
6	Diabetes Type I and II (Insulin Glargine)	14.1%	no data	27.74%
7	Immunosuppression, Transplant Rejection Prevention (Tacrolimus)	8.9%	no data	49.11%
8	Female Contraception (Drospirenone/Ethinylestradiol)	-1.7%	75.0%	31.65%
9	Depression, Bulimia, Obsessive-Compulsive Disorder (OCD), Among Others (Fluoxetine)	86.8%	51.9%	174.35%
10	Anxiety and Panic Disorder (Alprazolam)	no data	46.2%	21.59%
11	High Blood Pressure (Lisinopril)	179.5%	-75.0%	119.44%
12	Hepatitis B, HIV/AIDS (Tenofovir)	no data	no data	no data
13	Arthritis, Bowel Disease, Skin Disorders, Among Others (Adalimumab)	no data	no data	no data

Source: Medicine Price Index, Medbelle, 2019 and author's calculations

In Medbelle's own account, they found that only one out of 11 medicines (azithromycin) in Malaysia has a lower average price than the global median. No data are provided for tenofovir and adalimumab, the two most expensive among the 13 listed medicines. However, Medbelle's calculation involves the averages of both branded and generic products for the specific country and compound. Separating the two would help us to better understand the nature of medicine pricing.

Among branded medicines sold in Malaysia, only drospirenone/ethinylestradiol shows a lower price than in the median country (by 1.7%), while for lisinopril (for treating high blood pressure) the Malaysian price could be close to 180% above the median. The overall trend and clear evidence demonstrate that the prices of branded medicines in Malaysia are still generally on the high side, and on eight occasions they are priced higher than in more than half of all surveyed countries (with the price difference ranging from 8.9% to 179.5%).

For generic medicines, three out of nine (with available data) show lower prices in Malaysia than in the median country, though the Malaysian prices of the other six are higher than the median prices by at least a double-digit percentage (ranging from 46.2% to 186.1%). The medicine which showed by far the greatest negative deviation is also lisinopril (-75%, at USD0.05 per dose); however, if the generic price of lisinopril is compared with the branded price (USD1.09 per dose), the internal market difference is 2080% or 20.8x. This reveals how much public spending on this medicine could be saved if the country can have access to the generic medicine.

The result of high average medicine prices compared with many countries is rather alarming especially for the end-users. Sometimes, our prices are even higher than those in high-income countries. For example, Malaysia ranked sixth for both fluoxetine and lisinopril, and the average prices for the respective branded medicines are 7.4 and 4.0 times higher than those in Australia (see Appendix).

As the Medbelle study collected price information from online sources, some may already include mark-ups at the retail level or omit the possibility of rebates. It is also not possible to know if the price is a government or health reimbursement scheme procurement price, or private retail price. As a result, the average prices listed in the study could serve just as price indicators. The calculations for the percentage deviation from the global median price for general medication, total branded and generics are clearly misleading and not done with rigour, because one cannot just lump together medicines of different compound categories and different patent status into average calculations. That could be how the erroneous deductions made originated, especially when the data for the most expensive medicine, adalimumab, are not available for Malaysia. This has generally skewed the percentage deviation outcome for the so-called four least expensive countries: Indonesia, Malaysia, Kenya and Thailand (see Table 2).

If we compare Malaysia's average prices for each of the 13 medicine categories with the 49 other countries in the study, we find that 35 countries have generally more branded medicines that are cheaper than in

Table 2: Price deviation above or below the global median for each medicine and total price deviation from the global median in each country (Only last 12 countries are shown)

#	Country	Condition	Erectile Dysfunction	Epilepsy, Fibromyalgia, Generalized Anxiety Disorder, among others	Cardiovascular Disease, High Cholesterol	Asthma, Chronic Obstructive Pulmonary Disease	Bacterial Infection	Diabetes Type I and II	Immunosuppression, Transplant Rejection Prevention	Female Contraception	Depression, Bulimia, Obsessive-compulsive disorder (OCD), among others	Anxiety and Panic Disorder	High Blood Pressure	Hepatitis B, HIV/AIDS	Arthritis, Bowel Disease, Skin Disorders, among others	Total		
		Branded drug	Viagra	Lyrica	Lipitor	Ventolin	Zithromax	Lantus	Prograf	Yasmin	Prozac	Xanax	Zestril	Viread	Humira			
		Pharmaceutical Compound	Sildenafil	Pregabalin	Atorvastatin	Salbutamol	Azithromycin	Insulin Glargine	Tacrolimus	Drospirenone / Ethinylestradiol	Fluoxetine	Alprazolam	Lisinopril	Tenofovir	Adalimumab	Branded Drug	Generic Drug	Branded and Generic Drugs
		% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price	% Deviation from Median Price
39	China	21.00%	184.46%	203.72%	3.27%	-49.96%	141.04%	64.95%	86.85%	146.30%	-83.91%	57.08%	-72.11%	-48.58%	-8.86%	13.22%	-24.82%	
40	Australia	-62.02%	-50.72%	-63.97%	8.89%	92.84%	143.45%	-19.92%	74.38%	-46.08%	218.90%	-12.24%	40.88%	-1.89%	-7.09%	-36.46%	-25.05%	
41	South Korea	-14.25%	-14.60%	-13.99%	-43.95%	-55.28%	-10.37%	43.73%	-9.29%	-7.65%	-44.32%	18.23%	-97.99%	-13.69%	-22.74%	-66.53%	-33.98%	
42	Egypt	-89.24%	-44.85%	25.13%	-58.32%	-83.30%	-43.51%	-29.62%	-73.18%	-87.20%	28.73%	209.94%	-80.24%	-23.24%	-26.90%	-94.88%	-38.67%	
43	Turkey	14.82%	-53.40%	-53.24%	-66.97%	-52.33%	-33.93%	-61.94%	-21.92%	-62.53%	-62.91%	-60.29%	-65.61%	-51.99%	-56.96%	226.13%	-41.57%	
44	Russia	-7.43%	4.53%	-57.29%	-56.54%	-12.06%	-28.54%	-64.72%	16.69%	-24.57%	1062.89%	-14.51%	-62.84%	-65.81%	-65.37%	176.06%	-51.92%	
45	South Africa	-76.40%	-20.81%	37.33%	-14.11%	70.64%	-22.95%	-9.23%	-14.98%	23.25%	-10.85%	-56.89%	-91.62%	-32.84%	-38.61%	-75.63%	-53.72%	
46	India	-41.20%	-91.13%	-84.82%	-64.76%	-88.46%	6.62%	-87.46%	-54.94%	-84.43%	-73.21%	31.37%	162.87%	-74.20%	-87.41%	92.41%	-73.82%	
47	Indonesia	-50.82%	80.83%	-86.44%	112.72%	-45.55%	22.97%	5.83%	92.43%	-16.83%	66.86%	-90.36%	-82.78%	-	-91.45%	-57.07%	-90.23%	
48	Malaysia	61.04%	132.49%	115.01%	5.06%	-76.63%	27.74%	49.11%	31.65%	174.35%	21.59%	119.44%	-	-	-89.67%	-79.04%	-90.80%	
49	Kenya	-29.54%	18.93%	83.84%	-44.68%	21.75%	17.31%	-74.13%	-5.13%	50.06%	32.81%	227.41%	-	-	-92.79%	-90.30%	-93.76%	
50	Thailand	40.26%	24.04%	-2.15%	-46.18%	-35.97%	-3.65%	85.50%	-53.95%	30.71%	-77.06%	-57.92%	-83.88%	-	-92.94%	-93.11%	-93.93%	

Source: Adapted from Medicine Price Index, Medbelle, 2019

Malaysia (Table 3a), including high-income and developed countries such as Australia (7:2, i.e., out of nine medicine categories for which data are available, seven are found to be cheaper than in Malaysia), the United Kingdom (7:2), Canada (7:2), Sweden (8:0) and the Netherlands (8:0). Out of the comparisons made for 400 price pairings, Malaysia's prices are found to be cheaper only in 137 counts, or about 34% of such comparisons.

Though Malaysia has domestic generic medicine manufacturers, some of which even export their products, its average generic prices for the 13 medicine categories are not cheap or competitive enough when compared with the other 49 countries in the study. Out of 404 comparisons made, only 162 counts (or 40%) are cheaper than in the corresponding countries (Table 3b). There are still high-income countries with more generic medicines that are cheaper than in Malaysia – New Zealand (6:0), the Netherlands (7:2), France (6:3), South Korea (5:2).

Table 3a: 50-country price comparison with Malaysia's average price for each category of medicine, by branded product

	1	2	3	4	5	6	7	8	9	10	11	12	13	Analysis		
	Erectile Dysfunction (Sildenafil)	Epilepsy, Fibromyalgia, Generalized Anxiety Disorder, among others (Pregabalin)	Cardiovascular Disease, High Cholesterol (Atorvastatin)	Asthma, Chronic Obstructive Pulmonary Disease (Salbutamol)	Bacterial Infection (Azithromycin)	Diabetes Type I and II (Insulin Glargine)	Immunosuppression, Transplant Rejection Prevention (Tacrolimus)	Female Contraception (Drospirenone/Ethinylestradiol)	Depression, Bulimia, Obsessive-compulsive disorder (OCD), among others (Fluoxetine)	Anxiety and Panic Disorder (Alprazolam)	High Blood Pressure (Lisinopril)	Hepatitis B, HIV/AIDS (Tenofovir)	Arthritis, Bowel Disease, Skin Disorders, among others (Adalimumab)	No. of items where Malaysia is more expensive	No. of items where Malaysia is cheaper	Median Comparative Price, %
Country	Branded/Originator															
Argentina	656.1%	73.0%	-18.0%	-37.3%	no data	-52.8%	-30.9%	18.8%	68.3%	no data	354.2%	no data	no data	5	4	18.8%
Australia	487.7%	433.3%	614.3%	17.5%	no data	-55.0%	60.2%	-36.0%	639.1%	no data	303.7%	no data	no data	7	2	303.7%
Austria	-28.6%	190.9%	96.1%	-22.4%	no data	-22.7%	3.7%	-27.8%	84.8%	no data	no data	no data	no data	4	4	-9.3%
Belgium	5.2%	300.0%	212.5%	-17.9%	no data	42.1%	125.6%	-3.4%	68.3%	no data	186.8%	no data	no data	7	2	68.3%
Brazil	98.9%	-0.8%	-20.6%	-39.8%	no data	-36.1%	235.7%	-38.7%	60.4%	no data	-14.8%	no data	no data	3	6	-14.8%
Bulgaria	56.9%	700.0%	no data	9.9%	no data	33.1%	10.6%	32.6%	no data	no data	no data	no data	no data	6	0	32.6%
Canada	79.6%	-2.3%	-42.2%	32.1%	no data	10.9%	43.9%	29.5%	9.7%	no data	73.0%	no data	no data	7	2	29.5%
Chile	-19.9%	-34.7%	-61.5%	-74.0%	no data	-57.0%	-36.8%	-65.5%	-35.6%	no data	no data	no data	no data	0	8	-46.9%
China	49.7%	-17.9%	-16.7%	11.8%	no data	-53.4%	-25.0%	-36.7%	27.8%	no data	127.1%	no data	no data	4	5	-16.7%
Colombia	342.8%	509.5%	-60.6%	-12.1%	no data	81.2%	127.4%	67.6%	-49.3%	no data	no data	no data	no data	5	3	74.4%
Czechia	119.2%	48.8%	-42.5%	108.0%	no data	15.6%	56.7%	-6.6%	no data	no data	no data	no data	no data	5	2	48.8%
Denmark	-14.5%	-11.7%	-58.2%	-20.4%	no data	-0.3%	-33.6%	9.6%	no data	no data	no data	no data	no data	1	6	-14.5%
Egypt	1305.4%	190.9%	122.2%	317.5%	no data	126.1%	112.0%	235.3%	no data	no data	-29.7%	no data	no data	7	1	158.9%
Finland	-9.3%	124.6%	-12.3%	32.1%	no data	26.3%	-8.4%	-17.4%	no data	no data	no data	no data	no data	3	4	-8.4%
France	25.8%	161.2%	316.7%	11.8%	no data	52.0%	43.9%	18.8%	347.4%	no data	354.2%	no data	no data	9	0	52.0%
Germany	-14.4%	-38.8%	-52.4%	-65.0%	no data	-12.9%	-49.8%	-52.5%	no data	no data	230.3%	no data	no data	1	7	-44.3%
Greece	91.0%	212.2%	81.8%	146.7%	no data	17.9%	118.6%	29.5%	254.2%	no data	373.9%	no data	no data	9	0	118.6%
Hungary	9.0%	120.7%	85.2%	108.7%	no data	51.1%	176.5%	3.6%	no data	no data	no data	no data	no data	7	0	85.2%
Iceland	-21.4%	-35.0%	-5.7%	-63.4%	no data	0.0%	-19.7%	-3.4%	no data	no data	no data	no data	no data	0	6	-19.7%
India	123.7%	1500.0%	no data	410.3%	no data	8.5%	526.7%	90.0%	1788.9%	no data	172.5%	no data	no data	8	0	291.4%
Indonesia	322.5%	-26.9%	1150.0%	-45.7%	no data	-13.6%	41.0%	-38.7%	no data	no data	2625.0%	no data	no data	4	4	13.7%
Ireland	2250.9%	52.4%	354.5%	-8.7%	no data	51.8%	34.3%	-16.2%	750.0%	no data	319.2%	no data	no data	7	2	52.4%
Israel	87.7%	-11.7%	222.6%	-7.4%	no data	-19.4%	-49.0%	-19.7%	385.7%	no data	no data	no data	no data	3	5	-9.6%
Italy	13.3%	120.7%	-27.0%	32.7%	no data	-11.6%	-17.3%	-37.4%	295.3%	no data	131.9%	no data	no data	5	4	13.3%
Japan	7.1%	23.1%	22.0%	-23.7%	no data	-13.6%	-55.9%	-75.0%	no data	no data	127.1%	no data	no data	4	4	-3.3%
Kenya	85.0%	40.7%	-13.0%	106.6%	no data	8.9%	no data	23.9%	112.5%	no data	28.2%	no data	no data	7	1	34.4%
Lithuania	47.3%	66.2%	733.3%	51.1%	no data	52.3%	50.0%	no data	no data	no data	no data	no data	no data	6	0	51.7%
Mexico	51.4%	-9.9%	-49.0%	-69.2%	no data	-16.7%	-15.1%	-30.5%	-22.4%	no data	-28.8%	no data	no data	1	8	-22.4%
Netherlands	45.9%	172.3%	244.8%	4.2%	no data	44.9%	31.2%	67.6%	no data	no data	626.7%	no data	no data	8	0	56.8%
New Zealand	315.8%	4166.7%	no data	57.9%	no data	30.4%	no data	-17.4%	50.4%	no data	no data	no data	no data	5	1	54.2%
Norway	47.4%	16.4%	212.5%	-19.3%	no data	32.3%	43.9%	-56.8%	150.0%	no data	395.5%	no data	no data	7	2	43.9%
Philippines	-2.0%	-13.5%	38.9%	-25.1%	no data	-6.1%	-31.4%	no data	-23.1%	no data	-7.6%	no data	no data	1	7	-10.6%
Poland	11.1%	433.3%	488.2%	89.5%	no data	54.8%	176.5%	67.6%	no data	no data	no data	no data	no data	7	0	89.5%
Portugal	25.5%	120.7%	-32.9%	44.9%	no data	27.7%	77.4%	-3.4%	553.8%	no data	303.7%	no data	no data	7	2	44.9%
Qatar	82.4%	25.5%	-51.2%	33.9%	no data	-18.4%	-18.7%	50.0%	17.2%	no data	21.1%	no data	no data	6	3	21.1%
Russia	66.8%	73.0%	354.5%	175.1%	no data	78.7%	281.1%	-25.0%	209.1%	no data	no data	no data	no data	7	1	126.9%
Saudi Arabia	162.8%	184.4%	156.4%	43.2%	no data	-1.8%	-51.0%	90.0%	25.9%	no data	39.7%	no data	no data	7	2	43.2%
Slovakia	-16.0%	412.0%	185.7%	122.8%	no data	49.0%	131.1%	0.0%	no data	no data	no data	no data	no data	5	1	122.8%
South Africa	797.9%	204.8%	11.1%	13.1%	no data	45.4%	7.2%	16.3%	88.9%	no data	541.2%	no data	no data	9	0	45.4%
South Korea	120.6%	190.9%	66.7%	144.7%	no data	21.1%	-10.8%	29.5%	335.9%	no data	no data	no data	no data	7	1	93.7%
Spain	-20.0%	12.3%	177.8%	101.7%	no data	22.4%	113.6%	-38.7%	no data	no data	336.0%	no data	no data	6	2	62.0%
Sweden	12.4%	21.9%	58.7%	0.3%	no data	40.4%	3.7%	46.2%	no data	no data	419.0%	no data	no data	8	0	31.2%
Switzerland	-22.9%	10.3%	-47.6%	-32.2%	no data	-10.0%	-13.0%	-58.1%	91.0%	no data	81.7%	no data	no data	3	6	-13.0%
Taiwan	-11.3%	103.2%	53.8%	56.3%	no data	12.5%	-23.6%	-26.0%	2733.3%	no data	1111.1%	no data	no data	6	3	53.8%
Thailand	-6.8%	45.5%	143.9%	70.1%	no data	32.6%	-19.7%	54.1%	73.5%	no data	738.5%	no data	no data	7	2	54.1%
Turkey	109.6%	412.0%	488.2%	187.0%	no data	50.6%	184.8%	46.2%	962.5%	no data	890.9%	no data	no data	9	0	187.0%
UAE	79.3%	12.3%	-57.4%	41.5%	no data	-27.2%	-12.1%	54.1%	11.8%	no data	23.9%	no data	no data	6	3	12.3%
UK	85.0%	-12.3%	-13.0%	74.6%	no data	60.3%	39.6%	72.7%	1445.5%	no data	73.0%	no data	no data	7	2	72.7%
USA	-83.0%	-84.8%	-93.7%	-91.2%	no data	-82.8%	-55.7%	-92.3%	-89.9%	no data	-92.3%	no data	no data	0	9	-89.9%

Table 3b: 50-country price comparison with Malaysia's average price for each category of medicine, by generic product

	1	2	3	4	5	6	7	8	9	10	11	12	13	Analysis		
	Erectile Dysfunction (Sildenafil)	Epilepsy, Fibromyalgia, Generalized Anxiety Disorder, among others (Pregabalin)	Cardiovascular Disease, High Cholesterol (Atorvastatin)	Asthma, Chronic Obstructive Pulmonary Disease (Salbutamol)	Bacterial Infection (Azithromycin)	Diabetes Type I and II (Insulin Glargine)	Immunosuppression, Transplant Rejection Prevention (Tacrolimus)	Female Contraception (Drospirenone/Ethinylestradiol)	Depression, Bulimia, Obsessive-compulsive disorder (OCD), among others (Fluoxetine)	Anxiety and Panic Disorder (Alprazolam)	High Blood Pressure (Lisinopril)	Hepatitis B, HIV/AIDS (Tenofovir)	Arthritis, Bowel Disease, Skin Disorders, among others (Adalimumab)	No. of items where Malaysia is more expensive	No. of items where Malaysia is cheaper	Median Comparative Price, %
	Generic															
Argentina	1690.0%	63.5%	-23.2%	-2.2%	60.0%	no data	no data	150.0%	13.9%	850.0%	-80.8%	no data	no data	6	3	60.0%
Australia	111.8%	329.2%	341.7%	-27.7%	-86.7%	no data	no data	-12.5%	127.8%	-62.0%	-72.2%	no data	no data	4	5	-12.9%
Austria	163.2%	194.3%	65.6%	-77.2%	-85.0%	no data	no data	22.8%	-44.6%	35.7%	-88.6%	no data	no data	5	4	22.8%
Belgium	3.5%	243.3%	103.8%	-75.7%	-86.1%	no data	no data	48.9%	-14.6%	-53.7%	-84.4%	no data	no data	4	5	-14.6%
Brazil	155.7%	87.3%	-10.2%	55.1%	-76.7%	no data	no data	25.0%	24.2%	18.8%	-61.5%	no data	no data	6	3	24.2%
Bulgaria	68.9%	586.7%	430.0%	40.7%	-74.7%	no data	no data	84.2%	173.3%	no data	-82.1%	no data	no data	6	2	76.5%
Canada	-30.2%	347.8%	211.8%	-15.6%	-32.4%	no data	no data	100.0%	64.0%	11.8%	-64.3%	no data	no data	5	4	11.8%
Chile	222.5%	110.2%	381.8%	-80.9%	-20.0%	no data	no data	-35.2%	310.0%	375.0%	-96.4%	no data	no data	5	4	110.2%
China	-5.0%	-17.6%	-45.4%	-12.9%	45.5%	no data	no data	no data	-26.8%	533.3%	-84.8%	no data	no data	2	6	-15.2%
Colombia	2005.9%	442.1%	10.4%	17.8%	20.0%	no data	no data	125.8%	-81.0%	46.2%	-97.2%	no data	no data	7	2	20.0%
Czechia	no data	119.1%	307.7%	-23.4%	-40.0%	no data	no data	66.7%	115.8%	18.8%	-66.7%	no data	no data	5	3	42.7%
Denmark	269.1%	2.0%	381.8%	-51.7%	-70.0%	no data	no data	288.9%	7.9%	375.0%	-95.8%	no data	no data	6	3	7.9%
Egypt	1888.9%	836.4%	no data	140.9%	41.2%	no data	no data	677.8%	720.0%	216.7%	-16.7%	no data	no data	7	1	447.2%
Finland	342.0%	145.2%	39.5%	-29.6%	no data	no data	no data	66.7%	86.4%	-29.6%	-80.8%	no data	no data	5	3	53.2%
France	29.7%	329.2%	165.0%	-42.6%	-70.6%	no data	no data	75.0%	70.8%	90.0%	-73.7%	no data	no data	6	3	70.8%
Germany	0.6%	17.0%	17.8%	-79.3%	-90.3%	no data	no data	-26.3%	-39.7%	-50.0%	-72.2%	no data	no data	3	6	-39.7%
Greece	44.9%	212.1%	65.6%	49.3%	-57.9%	no data	no data	no data	41.4%	90.0%	no data	no data	no data	6	1	49.3%
Hungary	-4.8%	267.9%	960.0%	-44.2%	-64.7%	no data	no data	89.2%	51.9%	171.4%	-58.3%	no data	no data	5	4	51.9%
Iceland	46.1%	110.2%	130.4%	no data	-93.0%	no data	no data	no data	-42.3%	-78.2%	no data	no data	no data	3	3	1.9%
India	1391.7%	10200.0%	960.0%	67.4%	152.6%	no data	no data	438.5%	1266.7%	375.0%	-82.1%	no data	no data	8	1	438.5%
Indonesia	80.8%	3333.3%	2550.0%	-57.7%	zero/free	no data	no data	no data	28.1%	5.6%	400.0%	no data	no data	6	1	80.8%
Ireland	752.4%	157.5%	307.7%	-22.8%	-62.5%	no data	no data	66.7%	241.7%	72.7%	-75.0%	no data	no data	6	3	72.7%
Israel	-48.0%	66.1%	120.8%	no data	-74.7%	no data	no data	no data	32.3%	-80.8%	-83.9%	no data	no data	3	4	-48.0%
Italy	-40.8%	171.1%	76.7%	15.2%	-79.3%	no data	no data	-4.1%	70.8%	-50.0%	-80.8%	no data	no data	4	5	-4.1%
Japan	-61.5%	no data	8.2%	no data	-74.9%	no data	no data	no data	no data	216.7%	-66.7%	no data	no data	2	3	-61.5%
Kenya	1391.7%	296.2%	231.3%	64.8%	50.0%	no data	no data	no data	17.1%	46.2%	-94.1%	no data	no data	7	1	57.4%
Lithuania	33.6%	368.2%	381.8%	-19.3%	-69.6%	no data	no data	52.2%	156.3%	-9.5%	-75.0%	no data	no data	5	4	33.6%
Mexico	61.3%	836.4%	-28.4%	-52.1%	-78.2%	no data	no data	16.7%	-61.0%	-71.2%	-75.0%	no data	no data	3	6	-52.1%
Netherlands	-12.5%	2475.0%	2550.0%	26.2%	-26.2%	no data	no data	677.8%	1266.7%	72.7%	66.7%	no data	no data	7	2	72.7%
New Zealand	184.1%	no data	5200.0%	32.5%	60.0%	no data	no data	no data	4000.0%	no data	66.7%	no data	no data	6	0	125.4%
Norway	-55.8%	171.1%	65.6%	-56.0%	no data	no data	no data	-47.0%	-39.7%	no data	-76.2%	no data	no data	2	5	-47.0%
Philippines	289.1%	77.6%	89.3%	-44.4%	-28.4%	no data	no data	18.6%	-48.8%	-42.4%	no data	no data	no data	4	4	-4.9%
Poland	244.2%	1044.4%	657.1%	1.6%	-42.9%	no data	no data	159.3%	241.7%	58.3%	-54.5%	no data	no data	7	2	159.3%
Portugal	-30.1%	221.9%	278.6%	2.9%	-72.9%	no data	no data	233.3%	485.7%	137.5%	-58.3%	no data	no data	6	3	137.5%
Qatar	no data	56.1%	-63.2%	no data	-80.4%	no data	no data	no data	-52.3%	no data	-90.0%	no data	no data	1	4	-63.2%
Russia	105.7%	255.2%	488.9%	97.5%	-64.2%	no data	no data	89.2%	1266.7%	-89.0%	-77.3%	no data	no data	6	3	97.5%
Saudi Arabia	23.0%	80.7%	165.0%	7.8%	-79.6%	no data	no data	204.3%	-8.9%	no data	-87.2%	no data	no data	5	3	15.4%
Slovakia	-18.6%	692.3%	960.0%	-38.8%	-43.5%	no data	no data	29.6%	272.7%	90.0%	-50.0%	no data	no data	5	4	29.6%
South Africa	265.3%	178.4%	562.5%	44.5%	-80.2%	no data	no data	105.9%	720.0%	35.7%	-16.7%	no data	no data	7	2	105.9%
South Korea	22.2%	157.5%	2550.0%	no data	-47.3%	no data	no data	no data	28.1%	137.5%	-83.9%	no data	no data	5	2	28.1%
Spain	29.7%	51.5%	47.2%	11.6%	-76.7%	no data	no data	52.2%	310.0%	111.1%	-80.0%	no data	no data	7	2	47.2%
Sweden	0.0%	74.6%	211.8%	-47.7%	-69.8%	no data	no data	483.3%	7.9%	-38.7%	-28.6%	no data	no data	4	4	0.0%
Switzerland	-49.6%	102.0%	-45.4%	-83.7%	-92.5%	no data	no data	-19.5%	-32.8%	no data	-90.6%	no data	no data	1	7	-47.9%
Taiwan	-68.4%	94.3%	-18.5%	-16.8%	-35.1%	no data	no data	no data	583.3%	171.4%	-44.4%	no data	no data	3	5	-17.6%
Thailand	588.5%	194.3%	82.8%	169.5%	23.1%	no data	no data	775.0%	1950.0%	850.0%	-44.4%	no data	no data	8	1	194.3%
Turkey	-36.2%	390.5%	231.3%	274.1%	-50.5%	no data	no data	94.4%	241.7%	216.7%	-44.4%	no data	no data	6	3	216.7%
UAE	486.9%	505.9%	231.3%	-27.1%	-41.5%	no data	no data	180.0%	-12.8%	no data	-91.8%	no data	no data	4	4	83.6%
UK	539.3%	930.0%	430.0%	-20.7%	-36.8%	no data	no data	233.3%	485.7%	zero/free	-44.4%	no data	no data	5	3	331.7%
USA	71.3%	-67.7%	32.5%	-92.8%	-87.8%	no data	no data	-41.2%	46.4%	-20.8%	-80.8%	no data	no data	3	6	-41.2%

Source: Medicine Price Index, Medbelle, 2019 and author's own calculations

Indicator:

Red box = % price difference where Malaysia's price is higher than the corresponding country's price

Green box = % price difference where Malaysia's price is lower than the corresponding country's price

Blue box = Malaysia's price is the same as the corresponding country's price

"no data" = no available data from either Malaysia or the corresponding country

Median comparative price = median value of the differences for the 13 price comparisons

Another interesting observation is that generic-medicine-producing countries such as India and Egypt have their median comparative price much cheaper than Malaysia's average, at 438.5% and 447.2%, respectively (Table 3b). Meanwhile, branded-medicine-originating countries such as the USA, Germany, Switzerland and Japan generally have higher average medicine prices compared with other peer countries as well as Malaysia, as seen in the median comparative price (89.9%, 44.3%, 13.0% and 3.3%, respectively) (Table 3a).

The data from the Medbelle study, when properly analysed, in fact confirm and reinforce that medicine prices in Malaysia are still high. There are enough reasons for patient groups and consumers to show concern over this phenomenon, just based on these 13 indicative conditions and compounds.

Appendix

Branded and Generic Price per Dose for All Compounds

(Note: All currency figures are in USD; Malaysia is highlighted in bold red; the median-ranked country has its number box filled with yellow – if the median falls in between two countries, the average of the two countries is calculated.)

Condition/Compound 1: Erectile Dysfunction (Sildenafil)

Branded

	Country	Price/Dose
1	USA	75.88
2	Austria	18.12
3	Switzerland	16.76
4	Iceland	16.46
5	Spain	16.17
6	Chile	16.15
7	Slovakia	15.39
8	Denmark	15.13
9	Germany	15.11
10	Taiwan	14.57
11	Finland	14.25
12	Thailand	13.87
13	Philippines	13.19
14	Malaysia	12.93
15	Belgium	12.29
16	Japan	12.07
17	Hungary	11.86
18	Poland	11.64
19	Sweden	11.5
20	Italy	11.41
21	Portugal	10.3
22	France	10.28
23	Netherlands	8.86
24	Lithuania	8.78
25	Norway	8.77
26	China	8.64
27	Mexico	8.54
28	Bulgaria	8.24
29	Russia	7.75
30	UAE	7.21
31	Canada	7.2
32	Qatar	7.09
33	UK	6.99
34	Kenya	6.99
35	Israel	6.89
36	Greece	6.77
37	Brazil	6.5
38	Turkey	6.17
39	Czechia	5.9
40	South Korea	5.86
41	India	5.78
42	Saudi Arabia	4.92
43	New Zealand	3.11
44	Indonesia	3.06
45	Colombia	2.92
46	Australia	2.2
47	Argentina	1.71
48	South Africa	1.44
49	Egypt	0.92
50	Ireland	0.55

Generic

	Country	Price/Dose
1	Taiwan	11.33
2	Japan	9.29
3	Norway	8.1
4	Switzerland	7.11
5	Israel	6.89
6	Italy	6.05
7	Turkey	5.61
8	Canada	5.13
9	Portugal	5.12
10	Slovakia	4.4
11	Netherlands	4.09
12	China	3.77
13	Hungary	3.76
14	Malaysia	3.58
15	Sweden	3.58
16	Germany	3.56
17	Belgium	3.46
18	South Korea	2.93
19	Saudi Arabia	2.91
20	Spain	2.76
21	France	2.76
22	Lithuania	2.68
23	Greece	2.47
24	Iceland	2.45
25	Mexico	2.22
26	Bulgaria	2.12
27	USA	2.09
28	Indonesia	1.98
29	Russia	1.74
30	Australia	1.69
31	Brazil	1.4
32	Austria	1.36
33	New Zealand	1.26
34	Chile	1.11
35	Poland	1.04
36	South Africa	0.98
37	Denmark	0.97
38	Philippines	0.92
39	Finland	0.81
40	UAE	0.61
41	UK	0.56
42	Thailand	0.52
43	Ireland	0.42
44	Kenya	0.24
45	India	0.24
46	Argentina	0.2
47	Egypt	0.18
48	Colombia	0.17
49	Qatar	-
50	Czechia	-

**Condition/Compound 2: Epilepsy, Fibromyalgia, Generalised Anxiety Disorder, Among Others
(Pregabalin)**

Branded

	Country	Price/Dose
1	USA	8.4
2	Germany	2.09
3	Iceland	1.97
4	Chile	1.96
5	Indonesia	1.75
6	China	1.56
7	Philippines	1.48
8	UK	1.46
9	Denmark	1.45
10	Israel	1.45
11	Mexico	1.42
12	Canada	1.31
13	Brazil	1.29
14	Malaysia	1.28
15	Switzerland	1.16
16	Spain	1.14
17	UAE	1.14
18	Norway	1.1
19	Sweden	1.05
20	Japan	1.04
21	Qatar	1.02
22	Kenya	0.91
23	Thailand	0.88
24	Czechia	0.86
25	Ireland	0.84
26	Lithuania	0.77
27	Argentina	0.74
28	Russia	0.74
29	Taiwan	0.63
30	Italy	0.58
31	Portugal	0.58
32	Hungary	0.58
33	Finland	0.57
34	France	0.49
35	Netherlands	0.47
36	Saudi Arabia	0.45
37	South Korea	0.44
38	Austria	0.44
39	Egypt	0.44
40	South Africa	0.42
41	Greece	0.41
42	Belgium	0.32
43	Turkey	0.25
44	Slovakia	0.25
45	Australia	0.24
46	Poland	0.24
47	Colombia	0.21
48	Bulgaria	0.16
49	India	0.08
50	New Zealand	0.03

Generic

	Country	Price/Dose
1	USA	3.19
2	China	1.25
3	Malaysia	1.03
4	Denmark	1.01
5	Germany	0.88
6	Spain	0.68
7	Qatar	0.66
8	Argentina	0.63
9	Israel	0.62
10	Sweden	0.59
11	Philippines	0.58
12	Saudi Arabia	0.57
13	Brazil	0.55
14	Taiwan	0.53
15	Switzerland	0.51
16	Iceland	0.49
17	Chile	0.49
18	Czechia	0.47
19	Finland	0.42
20	Ireland	0.4
21	South Korea	0.4
22	Norway	0.38
23	Italy	0.38
24	South Africa	0.37
25	Thailand	0.35
26	Austria	0.35
27	Greece	0.33
28	Portugal	0.32
29	Belgium	0.3
30	Russia	0.29
31	Hungary	0.28
32	Kenya	0.26
33	France	0.24
34	Australia	0.24
35	Canada	0.23
36	Lithuania	0.22
37	Turkey	0.21
38	Colombia	0.19
39	UAE	0.17
40	Bulgaria	0.15
41	Slovakia	0.13
42	Mexico	0.11
43	Egypt	0.11
44	UK	0.1
45	Poland	0.09
46	Netherlands	0.04
47	Indonesia	0.03
48	India	0.01
49	Japan	-
50	New Zealand	-

Condition/Compound 3: Cardiovascular Disease, High Cholesterol (Atorvastatin)

Branded

	Country	Price/Dose
1	USA	15.86
2	Chile	2.6
3	Colombia	2.54
4	Denmark	2.39
5	UAE	2.35
6	Germany	2.1
7	Qatar	2.05
8	Mexico	1.96
9	Switzerland	1.91
10	Czechia	1.74
11	Canada	1.73
12	Portugal	1.49
13	Italy	1.37
14	Brazil	1.26
15	Argentina	1.22
16	China	1.2
17	Kenya	1.15
18	UK	1.15
19	Finland	1.14
20	Iceland	1.06
21	Malaysia	1
22	South Africa	0.9
23	Japan	0.82
24	Philippines	0.72
25	Taiwan	0.65
26	Sweden	0.63
27	South Korea	0.6
28	Greece	0.55
29	Hungary	0.54
30	Austria	0.51
31	Egypt	0.45
32	Thailand	0.41
33	Saudi Arabia	0.39
34	Spain	0.36
35	Slovakia	0.35
36	Norway	0.32
37	Belgium	0.32
38	Israel	0.31
39	Netherlands	0.29
40	France	0.24
41	Ireland	0.22
42	Russia	0.22
43	Turkey	0.17
44	Poland	0.17
45	Australia	0.14
46	Lithuania	0.12
47	Indonesia	0.08
48	Bulgaria	-
49	India	-
50	New Zealand	-

Generic

	Country	Price/Dose
1	Qatar	1.44
2	Switzerland	0.97
3	China	0.97
4	Mexico	0.74
5	Argentina	0.69
6	Taiwan	0.65
7	Brazil	0.59
8	Malaysia	0.53
9	Japan	0.49
10	Colombia	0.48
11	Germany	0.45
12	USA	0.4
13	Finland	0.38
14	Spain	0.36
15	Greece	0.32
16	Austria	0.32
17	Norway	0.32
18	Italy	0.3
19	Thailand	0.29
20	Philippines	0.28
21	Belgium	0.26
22	Israel	0.24
23	Iceland	0.23
24	Saudi Arabia	0.2
25	France	0.2
26	Canada	0.17
27	Sweden	0.17
28	UAE	0.16
29	Kenya	0.16
30	Turkey	0.16
31	Portugal	0.14
32	Czechia	0.13
33	Ireland	0.13
34	Australia	0.12
35	Chile	0.11
36	Denmark	0.11
37	Lithuania	0.11
38	UK	0.1
39	Bulgaria	0.1
40	Russia	0.09
41	South Africa	0.08
42	Poland	0.07
43	Hungary	0.05
44	Slovakia	0.05
45	India	0.05
46	South Korea	0.02
47	Netherlands	0.02
48	Indonesia	0.02
49	New Zealand	0.01
50	Egypt	-

Condition/Compound 4: Asthma, Chronic Obstructive Pulmonary Disease (Salbutamol)

Branded

	Country	Price/Dose
1	USA	68
2	Chile	22.94
3	Mexico	19.36
4	Germany	17.08
5	Iceland	16.29
6	Indonesia	10.99
7	Brazil	9.92
8	Argentina	9.52
9	Switzerland	8.81
10	Philippines	7.97
11	Japan	7.82
12	Austria	7.69
13	Denmark	7.5
14	Norway	7.4
15	Belgium	7.27
16	Colombia	6.79
17	Ireland	6.54
18	Israel	6.45
19	Malaysia	5.97
20	Sweden	5.95
21	Netherlands	5.73
22	Bulgaria	5.43
23	France	5.34
24	China	5.34
25	South Africa	5.28
26	Australia	5.08
27	Finland	4.52
28	Canada	4.52
29	Italy	4.5
30	Qatar	4.46
31	UAE	4.22
32	Saudi Arabia	4.17
33	Portugal	4.12
34	Lithuania	3.95
35	Taiwan	3.82
36	New Zealand	3.78
37	Thailand	3.51
38	UK	3.42
39	Poland	3.15
40	Spain	2.96
41	Kenya	2.89
42	Czechia	2.87
43	Hungary	2.86
44	Slovakia	2.68
45	South Korea	2.44
46	Greece	2.42
47	Russia	2.17
48	Turkey	2.08
49	Egypt	1.43
50	India	1.17

Generic

	Country	Price/Dose
1	USA	44.44
2	Switzerland	19.53
3	Chile	16.67
4	Germany	15.37
5	Austria	13.96
6	Belgium	13.08
7	Indonesia	7.52
8	Norway	7.22
9	Mexico	6.64
10	Denmark	6.58
11	Sweden	6.08
12	Philippines	5.72
13	Hungary	5.7
14	France	5.54
15	Slovakia	5.2
16	Finland	4.52
17	Australia	4.4
18	UAE	4.36
19	Czechia	4.15
20	Ireland	4.12
21	UK	4.01
22	Lithuania	3.94
23	Taiwan	3.82
24	Canada	3.77
25	China	3.65
26	Argentina	3.25
27	Malaysia	3.18
28	Poland	3.13
29	Portugal	3.09
30	Saudi Arabia	2.95
31	Spain	2.85
32	Italy	2.76
33	Colombia	2.7
34	Netherlands	2.52
35	New Zealand	2.4
36	Bulgaria	2.26
37	South Africa	2.2
38	Greece	2.13
39	Brazil	2.05
40	Kenya	1.93
41	India	1.9
42	Russia	1.61
43	Egypt	1.32
44	Thailand	1.18
45	Turkey	0.85
46	Iceland	-
47	Japan	-
48	Israel	-
49	Qatar	-
50	South Korea	-

Condition/Compound 5: Bacterial Infection (Azithromycin)

Branded

	Country	Price/Dose
1	USA	71.92
2	Greece	13.54
3	Mexico	11.05
4	Iceland	9.4
5	Switzerland	8.61
6	Colombia	8.54
7	Germany	7.61
8	Japan	5.99
9	Kenya	4.66
10	South Africa	4.55
11	Hungary	4.54
12	Australia	4.28
13	Austria	4.14
14	Canada	4.1
15	Chile	4.1
16	Qatar	3.76
17	UAE	3.68
18	Saudi Arabia	3.56
19	Norway	3.49
20	Bulgaria	3.27
21	Czechia	2.9
22	Italy	2.87
23	Philippines	2.77
24	Brazil	2.69
25	UK	2.62
26	Russia	2.26
27	Thailand	2.23
28	Indonesia	2.22
29	Slovakia	2.19
30	Spain	2.17
31	Argentina	2.08
32	France	2.04
33	Poland	2.03
34	Portugal	1.93
35	China	1.72
36	Netherlands	1.64
37	Ireland	1.4
38	Finland	1.37
39	Denmark	1.36
40	Turkey	0.97
41	South Korea	0.91
42	Taiwan	0.74
43	India	0.28
44	Belgium	-
45	Israel	-
46	Sweden	-
47	Lithuania	-
48	Malaysia	-
49	Egypt	-
50	New Zealand	-

Generic

	Country	Price/Dose
1	Iceland	6.88
2	Switzerland	6.36
3	Germany	4.95
4	USA	3.94
5	Australia	3.6
6	Belgium	3.46
7	Austria	3.21
8	Qatar	2.45
9	South Africa	2.42
10	Saudi Arabia	2.35
11	Italy	2.32
12	Mexico	2.2
13	Brazil	2.06
14	Spain	2.06
15	Japan	1.91
16	Bulgaria	1.9
17	Israel	1.9
18	Portugal	1.77
19	France	1.63
20	Denmark	1.6
21	Sweden	1.59
22	Lithuania	1.58
23	Hungary	1.36
24	Russia	1.34
25	Ireland	1.28
26	Greece	1.14
27	Turkey	0.97
28	South Korea	0.91
29	Slovakia	0.85
30	Poland	0.84
31	UAE	0.82
32	Czechia	0.8
33	UK	0.76
34	Taiwan	0.74
35	Canada	0.71
36	Philippines	0.67
37	Netherlands	0.65
38	Chile	0.6
39	Malaysia	0.48
40	Colombia	0.4
41	Thailand	0.39
42	Egypt	0.34
43	China	0.33
44	Kenya	0.32
45	Argentina	0.3
46	New Zealand	0.3
47	India	0.19
48	Indonesia	0
49	Norway	-
50	Finland	-

Condition/Compound 6: Diabetes Type I and II (Insulin Glargine)

Branded

	Country	Price/Dose
1	USA	90.31
2	Chile	36.14
3	Australia	34.54
4	China	33.31
5	Argentina	32.87
6	Brazil	24.31
7	UAE	21.32
8	Austria	20.09
9	Israel	19.26
10	Qatar	19.03
11	Mexico	18.64
12	Indonesia	17.98
13	Japan	17.98
14	Germany	17.82
15	Italy	17.56
16	Switzerland	17.26
17	Philippines	16.54
18	Saudi Arabia	15.81
19	Denmark	15.57
20	Iceland	15.53
21	Malaysia	15.53
22	India	14.31
23	Kenya	14.26
24	Canada	14
25	Taiwan	13.8
26	Czechia	13.43
27	Greece	13.17
28	South Korea	12.82
29	Spain	12.69
30	Finland	12.3
31	Portugal	12.16
32	New Zealand	11.91
33	Norway	11.74
34	Thailand	11.71
35	Bulgaria	11.67
36	Sweden	11.06
37	Belgium	10.93
38	Netherlands	10.72
39	South Africa	10.68
40	Slovakia	10.42
41	Turkey	10.31
42	Hungary	10.28
43	Ireland	10.23
44	France	10.22
45	Lithuania	10.2
46	Poland	10.03
47	UK	9.69
48	Russia	8.69
49	Colombia	8.57
50	Egypt	6.87

Generic

	Country	Price/Dose
1	USA	69.64
2	Iceland	42.28
3	Argentina	32.77
4	Chile	29.06
5	China	25.3
6	Australia	24.65
7	Austria	20.87
8	UAE	15.35
9	Germany	15.33
10	Israel	15.09
11	Switzerland	13.77
12	Denmark	13.58
13	Italy	13.34
14	Spain	12.69
15	Philippines	12.05
16	Indonesia	11.89
17	Finland	11.73
18	India	11.58
19	Norway	11.23
20	Czechia	10.95
21	Brazil	10.79
22	Saudi Arabia	10.79
23	Netherlands	10.72
24	Portugal	10.66
25	Canada	10.5
26	Greece	9.83
27	Sweden	9.72
28	South Korea	8.97
29	France	8.96
30	Slovakia	8.83
31	Ireland	8.76
32	Lithuania	8.73
33	Belgium	8.66
34	South Africa	8.06
35	Hungary	8.02
36	UK	7.75
37	Poland	6.93
38	Japan	6.88
39	Turkey	5.76
40	Qatar	-
41	Mexico	-
42	Malaysia	-
43	Kenya	-
44	Taiwan	-
45	New Zealand	-
46	Thailand	-
47	Bulgaria	-
48	Russia	-
49	Colombia	-
50	Egypt	-

Condition/Compound 7: Immunosuppression, Transplant Rejection Prevention (Tacrolimus)

Branded

	Country	Price/Dose
1	Japan	6.4
2	USA	6.37
3	Saudi Arabia	5.76
4	Germany	5.62
5	Israel	5.53
6	Chile	4.46
7	Denmark	4.25
8	Philippines	4.11
9	Argentina	4.08
10	China	3.76
11	Taiwan	3.69
12	Iceland	3.51
13	Thailand	3.51
14	Qatar	3.47
15	Italy	3.41
16	Mexico	3.32
17	Switzerland	3.24
18	UAE	3.21
19	South Korea	3.16
20	Finland	3.08
21	Malaysia	2.82
22	Austria	2.72
23	Sweden	2.72
24	South Africa	2.63
25	Bulgaria	2.55
26	Netherlands	2.15
27	Ireland	2.1
28	UK	2.02
29	Indonesia	2
30	Norway	1.96
31	Canada	1.96
32	France	1.96
33	Lithuania	1.88
34	Czechia	1.8
35	Australia	1.76
36	Portugal	1.59
37	Egypt	1.33
38	Spain	1.32
39	Greece	1.29
40	Belgium	1.25
41	Colombia	1.24
42	Slovakia	1.22
43	Poland	1.02
44	Hungary	1.02
45	Turkey	0.99
46	Brazil	0.84
47	Russia	0.74
48	India	0.45
49	New Zealand	-
50	Kenya	-

Generic

	Country	Price/Dose
1	Germany	4.42
2	Philippines	3.85
3	Argentina	3.7
4	Japan	2.75
5	Switzerland	2.52
6	China	2.47
7	Denmark	2.36
8	South Korea	2.28
9	Finland	2.14
10	Austria	2.09
11	Norway	1.96
12	Italy	1.9
13	UAE	1.87
14	Mexico	1.84
15	Sweden	1.75
16	Czechia	1.75
17	Netherlands	1.73
18	Canada	1.64
19	France	1.64
20	Bulgaria	1.58
21	Portugal	1.53
22	Poland	1.45
23	UK	1.41
24	Chile	1.32
25	Spain	1.32
26	Australia	1.27
27	Slovakia	1.24
28	Belgium	1.23
29	Hungary	0.95
30	Colombia	0.91
31	South Africa	0.81
32	Greece	0.71
33	USA	0.68
34	Lithuania	0.68
35	Brazil	0.61
36	Russia	0.59
37	New Zealand	0.53
38	Kenya	0.49
39	Turkey	0.45
40	India	0.02
41	Saudi Arabia	-
42	Israel	-
43	Taiwan	-
44	Iceland	-
45	Thailand	-
46	Qatar	-
47	Malaysia	-
48	Ireland	-
49	Indonesia	-
50	Egypt	-

Condition/Compound 8: Female Contraception (Drospirenone/Ethinylestradiol)

Branded

	Country	Price/Dose
1	USA	7.38
2	Japan	2.28
3	Chile	1.65
4	Switzerland	1.36
5	Norway	1.32
6	Germany	1.2
7	Indonesia	0.93
8	Brazil	0.93
9	Spain	0.93
10	Italy	0.91
11	China	0.9
12	Australia	0.89
13	Mexico	0.82
14	Austria	0.79
15	Taiwan	0.77
16	Russia	0.76
17	Israel	0.71
18	New Zealand	0.69
19	Finland	0.69
20	Ireland	0.68
21	Czechia	0.61
22	Iceland	0.59
23	Belgium	0.59
24	Portugal	0.59
25	Malaysia	0.57
26	Slovakia	0.57
27	Hungary	0.55
28	Denmark	0.52
29	South Africa	0.49
30	France	0.48
31	Argentina	0.48
32	Kenya	0.46
33	Greece	0.44
34	South Korea	0.44
35	Canada	0.44
36	Bulgaria	0.43
37	Turkey	0.39
38	Sweden	0.39
39	Qatar	0.38
40	UAE	0.37
41	Thailand	0.37
42	Colombia	0.34
43	Poland	0.34
44	Netherlands	0.34
45	UK	0.33
46	Saudi Arabia	0.3
47	India	0.3
48	Egypt	0.17
49	Philippines	-
50	Lithuania	-

Generic

	Country	Price/Dose
1	Norway	1.32
2	USA	1.19
3	Chile	1.08
4	Germany	0.95
5	Switzerland	0.87
6	Australia	0.8
7	Italy	0.73
8	Malaysia	0.7
9	Mexico	0.6
10	Philippines	0.59
11	Austria	0.57
12	Brazil	0.56
13	Slovakia	0.54
14	Belgium	0.47
15	Spain	0.46
16	Lithuania	0.46
17	Finland	0.42
18	Ireland	0.42
19	Czechia	0.42
20	France	0.4
21	Bulgaria	0.38
22	Russia	0.37
23	Hungary	0.37
24	Turkey	0.36
25	Canada	0.35
26	South Africa	0.34
27	Colombia	0.31
28	Argentina	0.28
29	Poland	0.27
30	UAE	0.25
31	Saudi Arabia	0.23
32	Portugal	0.21
33	UK	0.21
34	Denmark	0.18
35	India	0.13
36	Sweden	0.12
37	Netherlands	0.09
38	Egypt	0.09
39	Thailand	0.08
40	Japan	-
41	Indonesia	-
42	China	-
43	Taiwan	-
44	Israel	-
45	New Zealand	-
46	Iceland	-
47	Kenya	-
48	Greece	-
49	South Korea	-
50	Qatar	-

Condition/Compound 9: Depression, Bulimia, Obsessive-Compulsive Disorder (OCD), Among Others (Fluoxetine)

Branded

	Country	Price/Dose
1	USA	16.77
2	Colombia	3.35
3	Chile	2.64
4	Philippines	2.21
5	Mexico	2.19
6	Malaysia	1.7
7	Canada	1.55
8	UAE	1.52
9	Qatar	1.45
10	Saudi Arabia	1.35
11	China	1.33
12	New Zealand	1.13
13	Brazil	1.06
14	Belgium	1.01
15	Argentina	1.01
16	Thailand	0.98
17	Austria	0.92
18	South Africa	0.9
19	Switzerland	0.89
20	Kenya	0.8
21	Norway	0.68
22	Russia	0.55
23	Greece	0.48
24	Italy	0.43
25	South Korea	0.39
26	France	0.38
27	Israel	0.35
28	Portugal	0.26
29	Australia	0.23
30	Ireland	0.2
31	Turkey	0.16
32	UK	0.11
33	India	0.09
34	Taiwan	0.06
35	Iceland	-
36	Germany	-
37	Denmark	-
38	Sweden	-
39	Indonesia	-
40	Hungary	-
41	Finland	-
42	Czechia	-
43	Lithuania	-
44	Bulgaria	-
45	Poland	-
46	Slovakia	-
47	Spain	-
48	Egypt	-
49	Netherlands	-
50	Japan	-

Generic

	Country	Price/Dose
1	Colombia	2.16
2	Mexico	1.05
3	Qatar	0.86
4	Philippines	0.8
5	Austria	0.74
6	Iceland	0.71
7	Norway	0.68
8	Germany	0.68
9	Switzerland	0.61
10	China	0.56
11	Belgium	0.48
12	UAE	0.47
13	Saudi Arabia	0.45
14	Malaysia	0.41
15	Denmark	0.38
16	Sweden	0.38
17	Argentina	0.36
18	Kenya	0.35
19	Brazil	0.33
20	South Korea	0.32
21	Indonesia	0.32
22	Israel	0.31
23	Greece	0.29
24	USA	0.28
25	Hungary	0.27
26	Canada	0.25
27	Italy	0.24
28	France	0.24
29	Finland	0.22
30	Czechia	0.19
31	Australia	0.18
32	Lithuania	0.16
33	Bulgaria	0.15
34	Ireland	0.12
35	Turkey	0.12
36	Poland	0.12
37	Slovakia	0.11
38	Chile	0.1
39	Spain	0.1
40	Portugal	0.07
41	UK	0.07
42	Taiwan	0.06
43	South Africa	0.05
44	Egypt	0.05
45	Russia	0.03
46	India	0.03
47	Netherlands	0.03
48	Thailand	0.02
49	New Zealand	0.01
50	Japan	-

Condition/Compound 10: Anxiety and Panic Disorder (Alprazolam)

Branded

	Country	Price/Dose
1	USA	8.15
2	Mexico	1.06
3	Philippines	0.97
4	Colombia	0.8
5	Belgium	0.73
6	Brazil	0.72
7	Switzerland	0.57
8	Denmark	0.57
9	Canada	0.54
10	Iceland	0.53
11	Germany	0.52
12	Italy	0.51
13	Israel	0.35
14	Indonesia	0.35
15	Poland	0.35
16	Egypt	0.35
17	Lithuania	0.29
18	Kenya	0.29
19	Finland	0.27
20	UAE	0.27
21	Czechia	0.23
22	Norway	0.2
23	UK	0.16
24	Austria	0.15
25	Argentina	0.15
26	Qatar	0.13
27	Saudi Arabia	0.12
28	Japan	0.12
29	Slovakia	0.11
30	France	0.11
31	Portugal	0.11
32	Sweden	0.1
33	Greece	0.1
34	South Korea	0.1
35	Ireland	0.09
36	Hungary	0.09
37	Turkey	0.06
38	Thailand	0.05
39	Bulgaria	0.03
40	Russia	-
41	Australia	-
42	Malaysia	-
43	South Africa	-
44	Netherlands	-
45	Spain	-
46	Taiwan	-
47	India	-
48	Chile	-
49	China	-
50	New Zealand	-

Generic

	Country	Price/Dose
1	Russia	1.73
2	Israel	0.99
3	Iceland	0.87
4	Mexico	0.66
5	Australia	0.5
6	Belgium	0.41
7	Germany	0.38
8	Italy	0.38
9	Philippines	0.33
10	Sweden	0.31
11	Finland	0.27
12	USA	0.24
13	Lithuania	0.21
14	Malaysia	0.19
15	Indonesia	0.18
16	Canada	0.17
17	Brazil	0.16
18	Czechia	0.16
19	Austria	0.14
20	South Africa	0.14
21	Colombia	0.13
22	Kenya	0.13
23	Poland	0.12
24	Netherlands	0.11
25	Ireland	0.11
26	Slovakia	0.1
27	France	0.1
28	Greece	0.1
29	Spain	0.09
30	Portugal	0.08
31	South Korea	0.08
32	Hungary	0.07
33	Taiwan	0.07
34	Egypt	0.06
35	Japan	0.06
36	Turkey	0.06
37	Denmark	0.04
38	India	0.04
39	Chile	0.04
40	China	0.03
41	Argentina	0.02
42	Thailand	0.02
43	UK	0
44	Switzerland	-
45	UAE	-
46	Norway	-
47	Qatar	-
48	Saudi Arabia	-
49	Bulgaria	-
50	New Zealand	-

Condition/Compound 11: High Blood Pressure (Lisinopril)

Branded

	Country	Price/Dose
1	USA	14.13
2	Egypt	1.55
3	Mexico	1.53
4	Brazil	1.28
5	Philippines	1.18
6	Malaysia	1.09
7	Qatar	0.9
8	UAE	0.88
9	Kenya	0.85
10	Saudi Arabia	0.78
11	Canada	0.63
12	UK	0.63
13	Switzerland	0.6
14	China	0.48
15	Japan	0.48
16	Italy	0.47
17	India	0.4
18	Belgium	0.38
19	Germany	0.33
20	Australia	0.27
21	Portugal	0.27
22	Ireland	0.26
23	Spain	0.25
24	Argentina	0.24
25	France	0.24
26	Greece	0.23
27	Norway	0.22
28	Sweden	0.21
29	South Africa	0.17
30	Netherlands	0.15
31	Thailand	0.13
32	Turkey	0.11
33	Taiwan	0.09
34	Indonesia	0.04
35	Colombia	-
36	Chile	-
37	Denmark	-
38	Austria	-
39	Israel	-
40	South Korea	-
41	Bulgaria	-
42	Finland	-
43	Russia	-
44	Lithuania	-
45	Czechia	-
46	Hungary	-
47	Poland	-
48	Slovakia	-
49	New Zealand	-
50	Iceland	-

Generic

	Country	Price/Dose
1	Colombia	1.79
2	Chile	1.38
3	Denmark	1.18
4	Kenya	0.85
5	UAE	0.61
6	Switzerland	0.53
7	Qatar	0.5
8	Austria	0.44
9	Saudi Arabia	0.39
10	China	0.33
11	Belgium	0.32
12	Israel	0.31
13	South Korea	0.31
14	India	0.28
15	Bulgaria	0.28
16	USA	0.26
17	Italy	0.26
18	Finland	0.26
19	Argentina	0.26
20	Spain	0.25
21	Russia	0.22
22	Norway	0.21
23	Mexico	0.2
24	Ireland	0.2
25	Lithuania	0.2
26	France	0.19
27	Germany	0.18
28	Australia	0.18
29	Japan	0.15
30	Czechia	0.15
31	Canada	0.14
32	Brazil	0.13
33	Portugal	0.12
34	Hungary	0.12
35	Poland	0.11
36	Slovakia	0.1
37	UK	0.09
38	Thailand	0.09
39	Turkey	0.09
40	Taiwan	0.09
41	Sweden	0.07
42	Egypt	0.06
43	South Africa	0.06
44	Malaysia	0.05
45	Netherlands	0.03
46	New Zealand	0.03
47	Indonesia	0.01
48	Philippines	-
49	Greece	-
50	Iceland	-

Condition/Compound 12: Hepatitis B, HIV/AIDS (Tenofovir)

Branded

	Country	Price/Dose
1	USA	41.87
2	India	35.16
3	UAE	22.48
4	Denmark	21.34
5	Israel	20.43
6	Finland	20.09
7	Switzerland	18.46
8	Germany	17.5
9	Iceland	17.46
10	Lithuania	17.39
11	Chile	17.34
12	Canada	14.74
13	Italy	14.47
14	Sweden	12.76
15	Spain	12.71
16	Hungary	11.92
17	Czechia	11.82
18	Portugal	11.38
19	Saudi Arabia	10.72
20	France	10.64
21	Argentina	9.65
22	Australia	9.58
23	Mexico	9.56
24	UK	8.51
25	Ireland	8.26
26	Austria	7.42
27	Netherlands	6.8
28	Bulgaria	6.76
29	Greece	6.42
30	Slovakia	5.36
31	Belgium	5.27
32	Russia	4.49
33	Colombia	4.36
34	Turkey	3.11
35	Brazil	2.77
36	China	2.29
37	Thailand	1.4
38	Egypt	1.34
39	South Africa	0.87
40	South Korea	0.14
41	Norway	-
42	Japan	-
43	Indonesia	-
44	Poland	-
45	Philippines	-
46	New Zealand	-
47	Taiwan	-
48	Malaysia	-
49	Kenya	-
50	Qatar	-

Generic

	Country	Price/Dose
1	Israel	20.43
2	Norway	14.27
3	Iceland	13.97
4	UAE	11.24
5	Finland	9.9
6	Japan	8.85
7	Denmark	8.75
8	Switzerland	8.53
9	Argentina	7.68
10	Czechia	7.34
11	Austria	7.29
12	Greece	6.24
13	Ireland	5.42
14	France	5.09
15	Hungary	4.96
16	Canada	3.69
17	Bulgaria	3.5
18	Lithuania	3.21
19	Italy	2.2
20	Germany	1.65
21	Turkey	1.57
22	China	1.5
23	UK	1.3
24	USA	1.27
25	Indonesia	1.17
26	Poland	1.05
27	Colombia	0.93
28	Philippines	0.92
29	New Zealand	0.8
30	Thailand	0.79
31	Netherlands	0.7
32	India	0.56
33	Russia	0.56
34	Sweden	0.41
35	South Africa	0.27
36	Chile	-
37	Spain	-
38	Portugal	-
39	Saudi Arabia	-
40	Australia	-
41	Mexico	-
42	Slovakia	-
43	Belgium	-
44	Brazil	-
45	Egypt	-
46	South Korea	-
47	Taiwan	-
48	Malaysia	-
49	Kenya	-
50	Qatar	-

**Condition/Compound 13: Arthritis, Bowel Disease, Skin Disorders, Among Others
(Adalimumab)**

Branded

	Country	Price/Dose
1	USA	2704.63
2	Brazil	1091.78
3	Germany	1050.6
4	UAE	984.52
5	Qatar	924.25
6	Israel	893.47
7	Italy	874.78
8	Argentina	863.64
9	Denmark	776.13
10	Saudi Arabia	767.96
11	Philippines	715.75
12	Switzerland	666.12
13	Netherlands	643.68
14	Spain	619.75
15	Norway	584.63
16	Japan	581.25
17	Canada	580.44
18	Portugal	579.61
19	Belgium	569.92
20	Iceland	562.72
21	Chile	556.93
22	Mexico	512.24
23	Colombia	509.97
24	New Zealand	504.23
25	Bulgaria	496.7
26	Lithuania	486.66
27	Ireland	485.73
28	Greece	472.8
29	Australia	455.2
30	Hungary	453.39
31	Finland	453.07
32	China	444.08
33	Taiwan	441.91
34	UK	437.68
35	South Korea	400.54
36	Slovakia	390.59
37	Czechia	366.73
38	France	359.62
39	Egypt	356.18
40	Poland	326.06
41	South Africa	311.64
42	Sweden	310.8
43	Austria	300.15
44	Turkey	233.49
45	Russia	147.35
46	India	-
47	Malaysia	-
48	Kenya	-
49	Indonesia	-
50	Thailand	-

Generic

	Country	Price/Dose
1	UAE	689.13
2	Netherlands	643.68
3	Italy	621.1
4	Germany	620.37
5	Spain	619.75
6	Denmark	497.06
7	Finland	407.76
8	UK	383.08
9	Lithuania	377.81
10	Ireland	342.67
11	Slovakia	316.91
12	Austria	300.15
13	Greece	296.34
14	Czechia	289.17
15	Iceland	284.28
16	France	273.55
17	Poland	265.37
18	Hungary	257.81
19	Turkey	212.26
20	Sweden	208.54
21	Russia	169.83
22	India	119.53
23	China	33.02
24	USA	-
25	Brazil	-
26	Qatar	-
27	Israel	-
28	Argentina	-
29	Saudi Arabia	-
30	Philippines	-
31	Switzerland	-
32	Norway	-
33	Japan	-
34	Canada	-
35	Portugal	-
36	Belgium	-
37	Chile	-
38	Mexico	-
39	Colombia	-
40	New Zealand	-
41	Bulgaria	-
42	Australia	-
43	Taiwan	-
44	South Korea	-
45	Egypt	-
46	South Africa	-
47	Malaysia	-
48	Kenya	-
49	Indonesia	-
50	Thailand	-