

Price comparison of high-cost medicines 2015

Brief report

Commissioned by the Federal Ministry of Health and Women's Affairs

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Authors:

Sabine Vogler
Peter Schneider
Nina Zimmermann

Contributors:

Margit Gombocz
Bettina Heindl

Project assistant:

Ingrid Freiberger

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Owner and editor: Gesundheit Österreich GmbH, Stubenring 6, 1010 Vienna,
phone +43 1 515 61, fax +43 1 513 84 72, website: www.goeg.at

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Key issues

Gesundheit Österreich GmbH (Austrian Public Health Institute) was commissioned by the Austrian Federal Ministry of Health and Women's Affairs to conduct a price survey and comparison of 60 high-cost medicines. The latter were defined as those medicines that accounted for a high share of pharmaceutical expenditure to Austrian public payers. Price data from all 28 European Union Member States as of July 2015 were collected through the service for Pharma Price Information (PPI) and were compared at unit price level. The analysis only included official list prices of originator medicines.

On average, Austrian ex-factory prices for all 60 surveyed medicines were 55% above the price displayed in the lowest-priced country, 6% above the average price and 24% below the price in the highest-priced country. The Austrian ex-factory prices of rilmenidine, an antihypertensive medicine, and of trastuzumab for the treatment of cancer were the highest within the EU whereas the ex-factory price of the antidepressant escitalopram in Austria was the lowest of all EU Member States.

For 80 percent of all 60 surveyed medicines Austrian ex-factory prices were above the EU median. For all 15 medicines of the survey that were attributable to the in-patient sector, ex-factory prices were above the EU median.

Thus, Austrian ex-factory prices of the surveyed medicines ranged among the highest prices in EU context. For the medicines surveyed, even higher ex-factory prices tended to be found in Germany, Ireland, Denmark and Sweden whereas Bulgaria, Cyprus and Greece were identified as low-priced countries.

Austrian pharmacy purchasing prices (wholesale prices) for the 45 surveyed medicines of the out-patient sector showed a similar pattern in the EU comparison as the ex-factory prices of that sample. For pharmacy retail prices (i. e. prices including wholesale and pharmacy remuneration) the pattern changed; at this price level, Austrian prices tended to rank higher in the EU comparison. Net pharmacy retail prices (i. e. without value added tax) of 43 out of the 45 surveyed out-patient medicines ranged above the EU median, and the Austrian pharmacy purchasing price of one third of those medicines was the highest of all EU Member States. Austrian pharmacy retail prices net of the surveyed medicines were on average 90 percent higher than the price in the lowest-priced country, 27 percent above the average price and 16 percent below the price in the highest-priced country.

The analysis showed that in comparison to other European countries Austrian prices of the surveyed medicines used in hospitals are higher than those of the selected out-patient medicines. A second key finding was that the Austrian pharmacy retail prices of surveyed medicines rank comparably higher in EU comparison than Austrian ex-factory prices or pharmacy purchasing prices. This suggests a possible need for action for Austrian policy-makers in to their efforts to optimize the pharmaceutical pricing system to focus particular attention on the areas of medicines used in hospitals (with no price regulation) and to pharmacy remuneration.

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Country abbreviations

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	The Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	The Netherlands
PL	Poland
PT	Portugal
RO	Rumania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom (Great Britain and Northern Ireland)

1 Aim of the study

The aim of the study was to analyse and compare prices of high-cost medicines among European Union Member States. Medicines that account for a high share of public pharmaceutical expenditure were defined as high-cost medicines.

2 Methodology

The study analyses and compares the prices of 60 medicines, thereof 45 medicines that account for high public expenditure in the out-patient sector and 15 high-cost medicines in the in-patient sector. The selection of the medicines was guided by 2014 data about high-cost medicines provided by the Main Association of Austrian Social Security Institutions (MASSI) and two hospitals. In addition, the authors included further out-patient products that were proposed by MASSI in the light of the development of public pharmaceutical expenditure during the first months of 2015. Comparison of prices was made at unit price level (i.e. per dispensing unit such as a tablet, capsule, injection, etc.). The comparison was done for identical presentations of a medicine (i.e. the same pharmaceutical form, dosage and package size), and – in case of non-availability of price data – presentations of the same pharmaceutical form and dosages but with the closest different package size were considered. The price comparison only considered originators of the selected medicines, even if data for parallel imported medicines and generics of these medicines were available. They were excluded as they would have accounted for large variations. In an alternative analysis, medicines without any generic competitors from the sample (46 medicines) were selected and analysed.

Since Austria applies external price referencing, considering the prices of all other EU Member States, our price analysis was performed for all 28 countries that were members of the European Union at the time of the survey. Medicine price data were collected as of July 2015 through the Pharma Price Information (PPI) service which is operated by the Austrian Public Health Institute (Gesundheit Österreich GmbH) according to the law (§ 351c Abs. 6 ASVG, § 4 Abs. 1 Z. 10 GÖG-Gesetz). Price information refers to official list prices without consideration of discounts or clawbacks. In Denmark, Cyprus, Finland, the Netherlands, Sweden and UK, no official ex-factory prices are available, so these were calculated through average wholesale margins.

For all 60 selected medicines the ex-factory price was analysed, and for the 45 medicines of the out-patient sector, analyses of further price levels were made, taking into account distribution remuneration alongside the supply chain and taxes. These price types were the wholesale price /pharmacy purchasing price, the pharmacy retail price net and pharmacy retail price gross (i.e. prices that include remuneration for wholesalers and pharmacists with and without value-added tax). We applied methods of descriptive statistics to compare Austrian prices to other European countries.

3 Results

3.1 Data availability

Overall, data availability of medicine price data was good: around 80 percent of all possible data points at ex-factory price level could be collected. Since the product selection was based on high-cost medicines for Austria, Austria had the highest data availability (full coverage for all 60 selected medicines), followed by Germany and Greece which had price data for 57 medicines. In ten further countries, prices for 54 to 56 medicines were obtained. Malta, Estonia, Portugal (in the in-patient sector) and Ireland had the lowest amount of data available. In general, more data gaps occurred when generic alternatives were available, since in some countries originator products were either withdrawn from the market or originator medicine prices were not available following their delisting from reimbursement (prices of non-reimbursable medicines tend not to be published). Particularly low availability of price data was observed for new, high-cost medicines that were not marketed in Central and Eastern European countries or in small markets.

3.2 Price survey

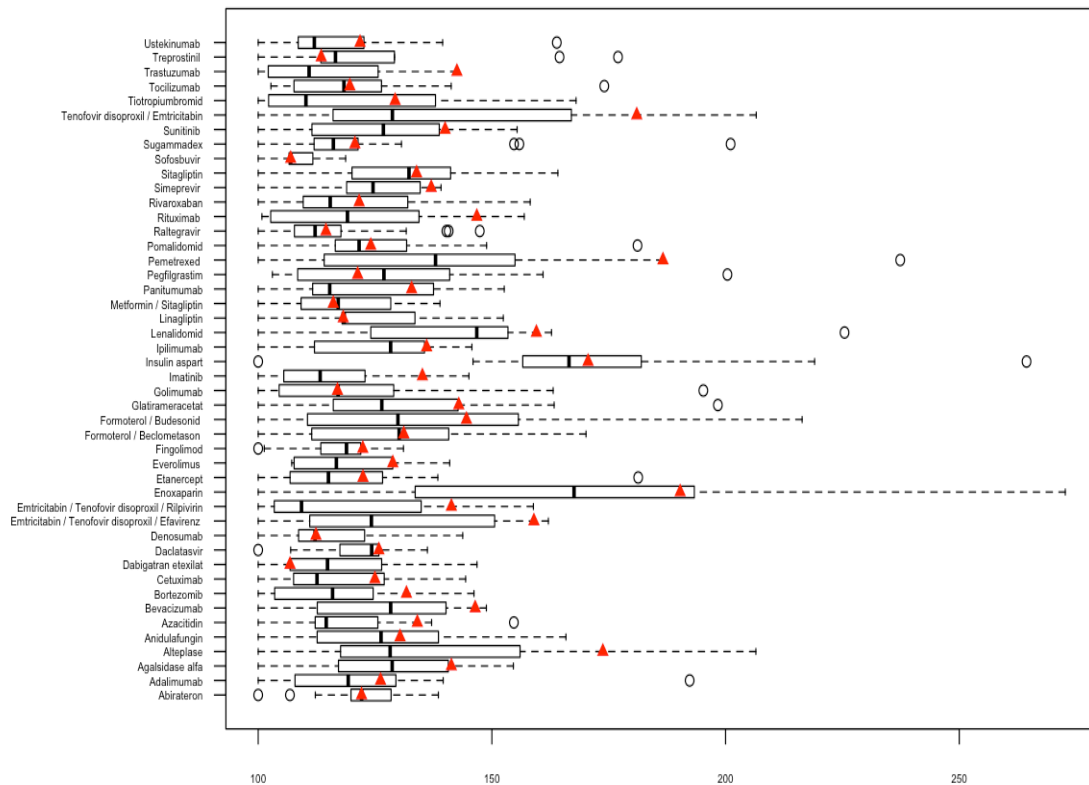
3.2.1 Ex-factory prices

The unit ex-factory prices (expressed as median of 28 EU Member States) ranged between 9.88 cent (originator bisoprolol, pack price for 50 tablets: 4.94 euro) and 18,421.06 euro (originator treprostinil; medicines will be indicated per Non-Proprietary International Name throughout the study). These findings are relevant for the whole sample as well as for the out-patient sector since both medicines were of the out-patient sector. In the in-patient sector, the median of the unit ex-factory prices varied between 34.77 euro (teicoplanin) and 16,037.46 euro (ipilimumab). 70 percent of all surveyed out-patient medicines had a unit ex-factory price (median) below 250 euro. In the in-patient sector, however, 80% of the medicines had an ex-factory price (median) above 250 euro.

On average, Austrian ex-factory prices for all 60 surveyed medicines were 54.6% above the price displayed in the lowest-priced country, 6.0% above the average price and 23.8% below the price in the highest-priced country. In the in-patient sector Austrian prices of the selected medicines were on average 90.0% above the price in the lowest-priced country (the equivalent figure for the out-patient sector was 42.8%), 18.8 percent above the average price (1.7% in the out-patient sector) and 13.4% below the price in the highest-priced country (27.2% in the out-patient sector).

Figure 3.1

Austrian ex-factory prices per unit (indexed) of the surveyed medicines that have no generic competitor on the market compared to the other EU Member States, 2015



Medicine price data are indexed (the price in the lowest priced country = 100). The box displays the interquartile range (IQR): the bottom and top of the box are the 25th and 75th percentiles (the lower and upper quartiles, respectively), and the band near the middle of the box is the median. The red triangle describes the data points for Austria. The dashed lines describe the bottom and top whiskers which are maximum 1.5 IQR. The small circles indicate extreme data points (commonly referred to as 'outliers').

For reasons of readability this boxplot only includes those 46 medicines for which no generic competitors are marketed. The 14 originator medicines of our sample that had generic competitors on the market (at least in a few countries) showed much higher ranges between the prices of the highest priced and the lowest priced countries; for details see the extended version of the study (in German).

How to read the boxplot: In the case of bevacizumab, for instance, the median price amounted to 128.4 (i.e. the median was 28.4 % above the price in the lowest-priced country); 50 % of the price data per medicine ranged between 113.5 and 139.7 (i. e. between 13.5 % and 39.7 % above the price in the lowest priced country); and the price in Austria amounted to 146.4 (i. e. 46.4 % above the lowest price). There are no outliers for bevacizumab.

Source: Pharma Price Information (PPI) service; analysis by GÖG

If the analysis had solely been done for medicines without generic alternatives (46 medicines), the respective results would have been as follows: Austrian prices for all medicines were 34.5% above the price in the lowest-priced country, 7.1% below the average price and 19.2% below the price in the highest-priced country.

When compared to all other EU Member States, Austria had the highest price for two medicines (rilmenidine for the treatment of hypertension and the anti-cancer medicine trastuzumab) and the lowest unit ex-factory price for one medicine (the antidepressant escitalopram).

Unit ex-factory prices in highest-priced countries were between 18.7 and 922.1 percent higher than the prices in lowest-priced countries. The high difference applied particularly to medicines with generic alternatives on the market, mainly identified in the out-patient sector.

For 80 percent of all 60 selected medicines, Austrian prices were above median, with 38.3% of medicines with prices in the third quartile and 41.7% in the fourth, thus highest, quartile. The remaining 20 percent of medicines with a price below the median were distributed as following: 6.7% fell into the first, thus lowest, quartile and 13.3% in the second quartile.

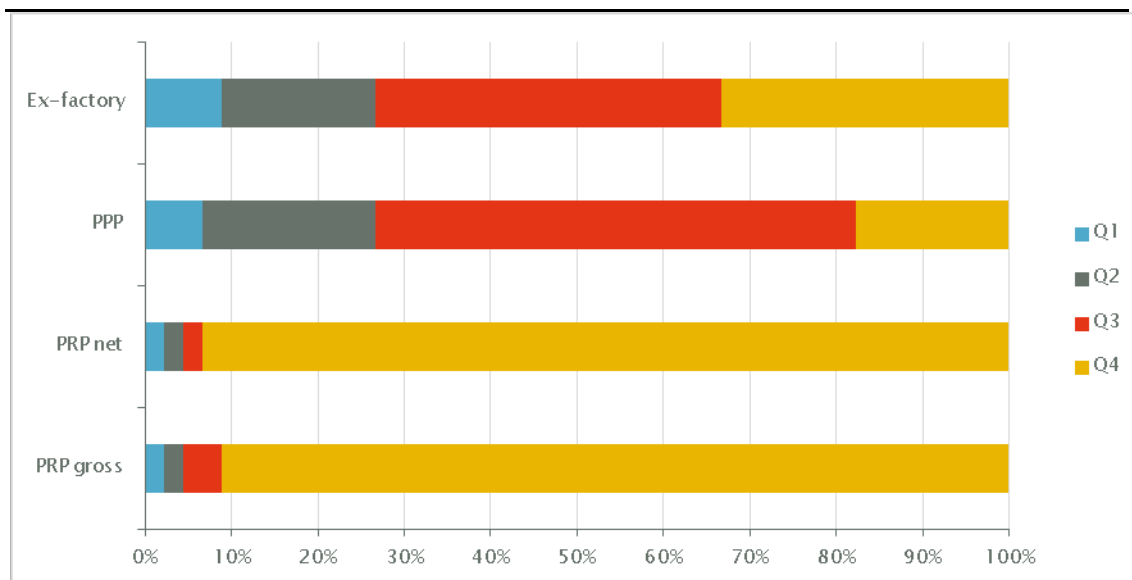
Thus, Austrian ex-factory prices of the selected medicines range among the highest priced in EU context. Still higher prices were found in the high-priced countries Germany (89.5% of all medicines had a price above the median and 80.7% in the fourth quartile) and Ireland (89.7% above the median and 64.1% in the fourth quartile). Further high-price countries with a high portion of medicine prices in the fourth quartile were Sweden (50%), United Kingdom (47.3%), Denmark (46.3%). On the other end, the price comparison identified Bulgaria, Cyprus and Greece as low-priced countries.

The sector-specific analysis revealed that the Austrian high prices were particularly identified for medicines from the in-patient sector: Ex-factory prices of all 15 medicines from the hospital sector were above the median, and two thirds of the prices were in the fourth quartile. The fractions of prices in the third quartile (40%) and in fourth quartile (33.3%) were considerably lower for in-patient medicines.

3.2.2 Pharmacy purchasing prices

Austrian pharmacy purchasing prices (wholesale prices) of the selected medicines were on average 41.1 percent above the price in the lowest-priced country, 1.3 percent above the average price and 28.2 percent below the price in the highest-priced country. Austria's ranking at wholesaler price level was similar to the picture at the ex-factory price level.

Figure 3.2:
 Ranking of Austrian prices of 45 surveyed out-patient medicines compared to the other EU Member States per quartile, at all price levels, 2015



Ex-factory = ex-factory (manufacturer) price, PPP = pharmacy purchasing price, PRP = pharmacy retail price. The quartiles are four equal groups of data; each group comprising a quarter of all data. Q₁ = a group that comprises ranked data below the first quartile (=splits off the lowest 25% of data from the highest 75%), Q₂ = a group that comprises ranked data between the first quartile and the median (=cuts data set in half), Q₃ = a group that comprises ranked data between the median and third quartile (=splits off the highest 25% of data from the lowest 75%), Q₄ = a group that comprises ranked data above the third quartile. How to read the figure: At ex-factory price level, the Austrian prices of 8.9% of the surveyed medicines (4 medicines in absolute figures) were in Q₁, 17.8% (absolute: 8 medicines) in Q₂, 40 percent (absolute: 18) in Q₃ and 33.3 percent (absolute: 15) in Q₄. At pharmacy retail price gross level, the Austrian prices of 2.2 percent of the medicines of the sample (absolute: 1 medicine) were in Q₁ and Q₂ respectively, 4.4% (absolute: 2 medicines) in Q₃ and 91.1 percent (absolute: 41) in Q₄.

Source: Pharma Price Information (PPI) service; analysis by GÖG

3.2.3 Pharmacy retail prices

At pharmacy retail price level the pattern changed. The highest shares of medicines with prices above the median, and particularly in the fourth quartile were observed in Austria and Italy. In Austria, pharmacy retail prices net (i.e. without value added tax) of 43 of the 45 out-patient medicines were found to be above the median, of which 42 medicines fell in the fourth quartile.

A third of all 45 surveyed medicines in the out-patient sector had the highest price, in EU comparison, in Austria and Italy. On average, Austrian net pharmacy retail prices of the selected medicines were 89.6 percent higher than the price in the lowest-priced country, 27.3 percent above the average price and 15.6 percent below the price in the highest-priced country. The respective figures at pharmacy retail price level gross (i.e. including VAT) were

97.3%, 28.1% and 18.2%. The picture for Sweden differed strongly from the data for Austria: at ex-factory price level Sweden was a high-priced country, whereas at pharmacy retail level substantially fewer products had prices above the median.

4 Conclusions

The analysis identified medicine prices in the in-patient pharmaceutical sector and pharmacy remuneration as key issues for policy-makers. In comparison to other European countries, Austrian prices of the selected medicines used in hospitals are relatively higher than those of the selected out-patient medicines. These results might be attributed to the fact that in Austria there is no price regulation for medicines used in hospitals. Also, the Austrian pharmacy retail prices of the selected medicines rank higher in EU comparison than Austrian ex-factory prices or pharmacy purchasing prices. This suggests comparably high pharmacy remuneration and calls for further analyses that also consider pharmacy services, and a discussion of alternative remuneration models.

In order to keep track of changes in prices over time, regular price monitoring is highly recommended. Further research on generic medicine prices and an analysis of the impact of statutory discounts on medicine prices is suggested.

An in-depth full version of the study that provides further results is available in German (ISBN 978-3-85159-203-0) at www.goeg.at.

Annex

Table A 1:

Statistical overview of the ex-factory prices (unit price) of the surveyed medicines in the 28 EU Member States, 2015

Medicine	min.	Q1	median	Q3	max.	Ø	ex-fact. AT	SD	IQR
Abirateron	21.3932	25.6767	26.1250	27.4643	29.6409	26.2841	26.1250	1.8540	1.7875
Adalimumab	386.3493	416.7804	460.8041	500.1896	742.9900	468.2154	487.5000	70.9591	83.4092
Agalsidase alfa	1,297.2891	1,529.5069	1,669.1695	1,820.8488	2,005.6000	1,650.8759	1,833.4200	197.9954	291.3418
Alteplase	327.0332	384.6909	419.3475	510.2750	675.2718	449.9915	568.2000	99.7755	125.5841
Anidulafungin	308.3848	350.4753	389.4563	422.7042	511.4300	390.1372	402.0000	56.4001	72.2289
Aripiprazol	1.9346	2.7295	3.0401	3.8996	4.6800	3.3092	3.6100	0.7765	1.1702
Azacitidin	284.2247	318.9450	325.6124	355.5000	439.7080	338.6850	381.0000	35.0992	36.5550
Bendamustin	235.0308	261.6854	273.8120	290.7388	350.8736	279.7163	301.1960	29.1299	29.0534
Bevacizumab	913.7480	1,036.9175	1,172.8150	1,276.9142	1,359.8560	1,152.6389	1,338.0000	139.3216	239.9966
Bisoprolol	0.0648	0.0782	0.0988	0.1237	0.2558	0.1094	0.1124	0.0434	0.0455
Bortezomib	885.2000	920.9605	1,026.0389	1,094.4225	1,293.9000	1,026.3144	1,166.0000	110.6440	173.4620
Cetuximab	159.2403	171.4564	179.2752	200.5885	229.9200	186.6151	199.0000	20.0127	29.1321
Dabigatran etexilat	0.9082	0.9701	1.0428	1.1481	1.3333	1.0596	0.9700	0.1051	0.1780
Daclatasvir	283.8393	335.0807	352.7499	357.1408	386.5993	344.8451	357.1429	24.6988	22.0601
Denosumab	261.6450	284.2705	293.4923	321.2300	376.1585	302.3433	293.9800	27.6435	36.9595
Duloxetine	0.5337	0.7532	0.9498	1.1233	2.1804	0.9854	0.9000	0.3194	0.3701
Emtricitabin / Tenofovir disoproxil / Efavirenz	19.9970	22.2016	24.8423	30.1139	32.4120	25.8568	31.7933	4.2001	7.9123
Emtricitabin /Tenofovir disoproxil / Rilpivirin	21.2828	22.0150	23.2543	28.7049	33.8139	25.3462	30.0800	4.1464	6.6900
Enoxaparin	1.8719	2.6779	3.1371	3.5908	5.1045	3.1609	3.5620	0.9159	0.9129
Escitalopram	0.2211	0.3800	0.5102	0.5899	1.4100	0.5166	0.2211	0.2443	0.2099
Etanercept	194.0230	207.3179	223.1696	244.0184	351.7750	229.5957	237.5250	33.4873	36.7004
Everolimus	99.2766	99.7829	108.1261	118.5765	130.5875	109.7021	119.3133	9.9605	18.7936
Fingolimod	48.6211	55.2104	57.8100	59.2957	63.7330	57.0461	59.5036	3.6467	4.0853
Formoterol / Beclometason	0.2078	0.2316	0.2704	0.2925	0.3535	0.2662	0.2725	0.0399	0.0609
Formoterol / Budesonid	0.2219	0.2501	0.2883	0.3429	0.4802	0.3051	0.3208	0.0663	0.0928

Medicine	min.	Q1	median	Q3	max.	Ø	ex-fact. AT	SD	IQR
Glatirameracetat	20.6412	23.9567	26.1010	29.4691	40.9427	26.8937	29.5000	4.4183	5.5124
Golimumab	792.4723	844.0763	927.9644	1,017.9827	1,547.2300	970.8191	926.9000	166.7759	173.9064
Imatinib	62.8042	66.4307	71.1344	76.5050	91.1217	72.7275	84.8697	7.5727	10.0743
Infliximab	373.8664	451.2711	510.0000	536.2823	753.4733	507.3255	561.4000	76.6203	85.0112
Insulin aspart	3.4600	5.4284	5.7609	6.1977	9.1480	5.9187	5.9020	1.0772	0.7693
Interferon beta 1a	127.5011	160.9854	189.3666	214.2445	351.7500	193.6963	211.9375	48.6145	53.2590
Ipilimumab	12,495.6558	14,000.1598	16,037.4577	16,915.1287	18,209.4398	15,622.0200	17,000.0000	1,592.6689	2,914.9689
Lenalidomid	163.4350	203.1544	239.8659	250.1642	368.4706	233.5199	260.7162	41.3608	47.0098
Linagliptin	0.9459	1.1156	1.1200	1.2632	1.4420	1.1686	1.1180	0.1176	0.1476
Metformin / Sitagliptin	0.5191	0.5668	0.6080	0.6664	0.7210	0.6178	0.6025	0.0614	0.0996
Paclitaxel	213.7556	243.0593	299.7147	320.0000	368.5977	287.3845	320.0000	49.6534	76.9407
Panitumab	319.9674	357.2683	368.9216	439.9976	488.4000	391.1766	425.0000	45.6372	82.7293
Pantoprazol	0.1111	0.1973	0.2786	0.3813	1.1357	0.3782	0.1971	0.3066	0.1840
Pegfilgrastim	706.0068	743.0329	869.5500	965.8785	1,373.0400	890.2051	831.0000	156.3326	222.8455
Pemetrexed	851.0076	971.1701	1,173.9330	1,318.6399	2,020.0000	1,174.3644	1,588.0000	267.9283	347.4697
Pomalidomid	344.9636	403.3029	419.4400	448.6905	624.9231	434.1372	428.0476	63.9096	45.3876
Raltegravir	8.7337	9.4215	9.7965	10.2423	12.8744	10.0950	10.000	1.1571	0.8208
Rilmenidine	0.1972	0.2027	0.2189	0.2443	0.2913	0.2303	0.2913	0.0331	0.0416
Rituximab	1,041.3900	1,061.0919	1,230.5320	1,388.2525	1,621.2600	1,249.3700	1,516.4300	194.2636	327.1606
Rivaroxaban	1.7763	1.9474	2.0500	2.3448	2.8100	2.1608	2.1600	0.2916	0.3975
Rosuvastatin	0.1666	0.5922	0.6352	0.7129	1.2280	0.6654	0.6817	0.1891	0.1206
Salmeterol	0.4876	0.5621	0.6744	0.7640	0.8520	0.6740	0.7775	0.1082	0.2018
Simeprevir	238.9133	284.9217	297.6194	321.5726	332.3757	298.2864	327.3679	25.7025	36.6508
Sitagliptin	0.9000	1.0807	1.1904	1.2706	1.4771	1.1920	1.2050	0.1409	0.1899
Sofosbuvir	456.3802	487.3213	488.1072	507.6694	541.7741	496.0548	488.0954	22.1438	20.3481
Sugammadex	64.6258	72.3552	75.0178	78.4401	129.9480	80.0615	78.0000	15.2714	6.0849
Sunitinib	125.2440	139.6483	158.7841	173.7680	194.6287	158.2943	175.3333	17.9667	34.1197
Teicoplanin	8.8862	21.8404	34.7715	50.5670	86.5600	40.4287	77.0340	23.9119	28.7266
Tenofovir disoproxil / Emtricitabin	12.3194	14.2928	15.8574	20.2042	25.4468	17.0538	22.2973	3.5694	5.9115

Medicine	min.	Q1	median	Q3	max.	Ø	ex-fact. AT	SD	IQR
Tiotropiumbromid	0.8894	0.9102	0.9803	1.2076	1.4943	1.0597	1.1500	0.1820	0.2974
Tocilizumab	578.1862	605.9612	666.0831	711.3225	979.6200	678.5601	673.2000	89.8450	105.3613
Trastuzumab	484.1363	494.5684	536.8680	608.3812	690.0000	560.1286	690.0000	70.4422	113.8128
Trazodon	0.1639	0.1859	0.1939	0.2421	0.8801	0.3028	0.1718	0.2417	0.0562
Treprostinil	15,807.4500	17,926.1811	18,421.0600	20,417.0000	27,977.4887	19,909.5894	17,938.0500	4,265.0582	2,490.8189
Ustekinumab	2,471.1818	2,687.2069	2,767.9763	3,025.2594	4,050.0000	2,889.9764	3,009.7800	329.2059	338.0525

Ø = average (= arithmetic average of the available price data), ex-fact. AT = ex-factory price (unit price) in Austria, IQR = interquartile range (= the difference between first and third quartile, comprising 50% of data points), max. = highest price of the compared medicines, median = 'middle' value of a data set (= value that cuts data set in half), min. = lowest price of the compared medicines, Q1 = first quartile (= value that splits off the lowest 25% of data from the highest 75%), Q3 = third quartile (= value that splits off the highest 25% of data from the lowest 75%), SD = standard deviation

Source: Pharma Price Information (PPI) service; analysis by GÖG

Table A 2:

Distribution of the ex-factory prices of the surveyed medicines per quartile in the 28 EU Member States, 2015

Medicine	Q ₁	Q ₂	Q ₃	Q ₄
Abirateron	CY, BG, EL, FI, FR, SE	AT, BE, CZ, LT, LU, NL, SK	DK, PL, PT, RO, SI	DE, EE, ES, IE, IT, UK
Adalimumab	CY, BG, CZ, EL, HU, RO, SK	FI, FR, HR, LV, PT, SI, UK	AT, BE, LT, LU, MT, PL	DK, ES, IE, IT, NL, SE, DE
Agalsidase alfa	UK , UK, CZ, EL, FI, HU	FR, HR, IT, PT, SK	BE, DK, ES, LU, RO	AT, BG, SE, SI, DE
Alteplase	RO , BG, CZ, EL, HR, LT	BE, CY, LU, LV, MT, NL	DK, ES, IT, PL, UK	AT, DE, IE, SI, SK, SE
Anidulafungin	CZ , BG, CY, EL, HR, RO	ES, IE, IT, LT, UK	AT, BE, LU, NL, SI	DE, DK, FI, SE, SK, PL
Aripiprazol	ES , CZ, EL, PT, RO	CY, FR, IT, SI, SK	AT, BE, IE, LU	DK, FI, SE, UK, DE
Azacitidin	CY , EL, FR, HR, SK	BE, CZ, IT, LT, LU	DK, ES, NL, PL, SI	AT, DE, FI, UK, SE
Bendamustin	CY , BG, CZ, IT, RO	BE, DK, SI, SK	DE, ES, FR, PL	AT, FI, NL, UK, SE
Bevacizumab	FR , BG, CY, CZ, EL, SK	BE, DK, HR, HU, RO, UK	ES, IT, LU, NL, PL, SE	AT, DE, LT, LV, SI, FI
Bisoprolol	IE , FR, LV, NL, SK	BE, BG, EL, HR, RO	AT, CZ, DE, ES, PT	CY, FI, LU, SI, UK
Bortezomib	EL , BG, CY, CZ, HU, SK	BE, DK, LV, PL, RO, UK	FR, HR, LT, LU, NL, SI	AT, ES, FI, IT, SE, DE
Cetuximab	HU , BG, CY, EL, FR, SI	BE, CZ, HR, LU, LV, SK	AT, ES, IT, PL, RO, SE	DK, FI, LT, NL, UK, DE
Dabigatran etexilat	CY , AT, BG, EL, HU, PT, SK	DK, ES, FI, FR, HR, PL, SI	CZ, EE, IT, NL, RO, SE	BE, DE, IE, LT, LU, LV, UK
Daclatasvir	NL , BE, FR, PL	DK, FI, RO, SE	EL, HU, IT, UK	AT, ES, PT, DE
Denosumab	CY , EL, FR, HU, IT, SK	BG, CZ, ES, FI, HR	AT, BE, DK, LU, RO, SI	DE, IE, NL, SE, UK
Duloxetine	FI , ES, FR, PT, SE, SI, SK	AT, CY, CZ, EE, EL, HR, HU	IT, LT, LV, MT, PL, RO	BE, DK, IE, LU, NL, UK, DE
Emtricitabin / Tenofovir disoproxil / Efavirenz	IT , CY, FR, UK	BE, EL, ES, LU	IE, NL, SE	AT, DK, FI, DE
Emtricitabin / Tenofovir disoproxil / Rilpivirin	UK , CY, EL, HR, IT	CZ, ES, FR, SI, SK	BE, LU, NL, SE	AT, DE, FI, IE, DK
Enoxaparin	HU , BG, CZ, EL, PL, RO, SK	BE, EE, ES, HR, LU, LV, PT	AT, FI, IT, LT, NL, SE, SI	CY, DE, FR, IE, MT, UK, DK
Escitalopram	AT , BE, BG, HU, IT, LU, NL	CZ, EL, FR, HR, RO, SI	CY, ES, IE, LT, LV, PT	DK, EE, FI, SE, UK, DE
Etanercept	CY , BG, EL, HR, HU, SK	CZ, FR, LV, PL, SI, UK	AT, ES, FI, IE, IT, PT	BE, DK, LU, NL, SE, DE
Everolimus	HU , BE, BG, CY, EE, LU, SK	CZ, DK, EL, FI, HR, RO	ES, FR, IE, LV, NL, UK	AT, DE, IT, LT, PL, SI, SE
Fingolimod	CY , CZ, DE, EL, FI, SK	BG, DK, ES, HU, LT, NL	HR, IT, LU, PL, RO, SE	AT, BE, FR, IE, LV, UK
Formoterol / Beclometason	CZ , BG, EE, EL, LT, RO	CY, FR, HU, LV, SI, SK	AT, ES, FI, IT, NL	BE, DE, LU, SE, UK, DK
Formoterol / Budesonid	HU , BE, BG, EE, EL, LU, LV	FI, FR, HR, PL, SI, SK	AT, CY, CZ, IT, NL, RO	DE, ES, IE, LT, SE, UK, DK

Medicine	Q1	Q2	Q3	Q4
Glatirameracetat	HU, BE, CY, CZ, EL, HR, UK	FI, FR, IT, LV, PT, RO, SI	BG, ES, LT, LU, NL, SK	AT, DK, EE, IE, PL, SE, DE
Golimumab	CY, BG, EL, FR, PL, SI, SK	AT, CZ, HR, PT, RO, UK	BE, FI, HU, IE, LU, LV	DK, ES, IT, LT, NL, SE, DE
Imatinib	CY, CZ, EL, HU, SK	DK, FR, HR, PL, SI	BE, LU, NL, PT, UK	AT, ES, IE, SE, DE
Infliximab	CZ, BE, CY, EL, FR, HU, RO	HR, MT, PL, PT, SK, UK	DK, ES, IT, LU, LV, SE	AT, FI, IE, LT, NL, DE
Insulin aspart	MT, CY, CZ, EL, HU, PL	BG, FI, PT, RO, SK	AT, BE, FR, LU, SI	DK, IE, NL, SE, UK, DE
Interferon beta 1a	EE, BG, CY, HR, SE	CZ, EL, FI, HU, PL	AT, BE, SI, UK	DK, IE, LU, NL, DE
Ipilimumab	CY, DE, EL, FR, SI	BG, CZ, DK, IT, NL	FI, PL, RO, SE, SK	AT, BE, ES, LU, UK
Lenalidomid	FR, CY, EE, EL, FI, PL	DK, LV, SE, SK, UK	BE, HR, IE, IT, LU	AT, CZ, DE, ES, SI, NL
Linagliptin	CY, CZ, EE, HR, HU, PL, SE	AT, BE, BG, LU, SI, SK	EL, FI, LT, LV, PT, RO	DK, ES, IE, IT, NL, UK
Metformin / Sitagliptin	EL, CY, CZ, HU, RO, SE, SK	AT, BG, DE, EE, HR, SI	DK, FI, LT, NL, PL, PT	BE, ES, IE, IT, LU, UK
Paclitaxel	CY, EL, ES, IT	CZ, HR, UK	AT, DE, DK, NL, SI	SE, FI
Panitumumab	CY, BG, CZ, DK, EL, HU, SK	BE, FR, HR, LU, RO, SI	AT, ES, IT, LV, PL, SE	EE, FI, LT, NL, UK, DE
Pantoprazol	IE, AT, HR, PL, SK	BE, LU, NL, RO, SI	CY, LT, LV, SE	CZ, DK, EL, ES, DE
Pegfilgrastim	PL, BG, CY, CZ, EL, RO, SK	AT, FR, HR, LV, SI, UK	DK, ES, FI, HU, IT, LT	BE, IE, LU, NL, SE, DE
Pemetrexed	PL, BG, CZ, EL, MT, SK, UK	CY, FR, HR, HU, LT, RO	BE, DK, ES, LU, NL, SI	AT, FI, IT, LV, SE, DE
Pomalidomid	CY, DK, PL, SE	DE, EL, FI, SI	AT, ES, FR, NL	BE, LU, UK, IT
Raltegravir	CY, BG, FR, IT, SE, SI	BE, EL, HR, LU, SK, UK	AT, CZ, DK, FI, HU, LT	DE, ES, IE, NL, PL, RO
Rilmenidine	CZ, HU, LV	LT, SK	FR, PT	LU, AT
Rituximab	EL, BG, CZ, HU, SK, UK	BE, CY, DK, HR, LU, RO	ES, FR, IE, IT, PL, SE	AT, FI, LT, LV, SI, DE
Rivaroxaban	CY, BG, EE, EL, RO, SK	CZ, FR, NL, PL, PT, SI	AT, FI, IE, IT, SE	DE, LT, LV, UK, BE, LU
Rosuvastatin	EE, BG, CY, IE, IT, PT	EL, ES, FR, RO, SI	AT, BE, CZ, LU, SE	DK, FI, NL, UK, DE
Salmeterol	RO, CZ, EL, HR, HU, PL, SK	BG, CY, EE, FI, FR, LV, SE	BE, IT, LT, LU, MT, PT, SI	AT, DE, DK, ES, NL, UK, IE
Simeprevir	EE, CY, CZ, DE, FR, NL	EL, HU, LU, LV, SE, SK	BE, DK, HR, IT, PL, RO	AT, ES, PT, SI, UK, FI
Sitagliptin	FR, CY, CZ, EL, HU, SE, SK	BG, DE, EE, HR, LT, LV, RO	AT, BE, FI, LU, PT, SI	ES, IE, IT, NL, PL, UK, DK
Sofosbuvir	NL, CY, DK, FI, SE	AT, BG, FR, LU, SI	BE, EL, ES, SK, UK	DE, IT, LV, PT, RO
Sugammadex	CY, BG, EL, FI, HU	ES, IT, NL, PL, RO	AT, BE, DE, LU	DK, LT, SE, SI, SK
Sunitinib	MT, BG, CY, CZ, EL, SK, UK	DK, EE, FI, HR, HU, LT, RO	BE, ES, IE, LU, NL, PL	AT, FR, IT, LV, SE, SI, DE

Medicine	Q ₁	Q ₂	Q ₃	Q ₄
Teicoplanin	UK , BG, EL, ES, LU	BE, CZ, HR, PL, RO	FR, HU, IT, NL, SI	AT, DE, IE, SE, SK
Tenofovir disoproxil / Emtricitabin	MT , BG, EL, FR, HR, SK	CY, CZ, ES, IT, SI, UK	BE, LU, LV, NL, PL, SE	AT, DE, FI, IE, LT, DK
Tiotropiumbromid	PL , BG, EL, FR, HR, SI, SK	CY, CZ, HU, LV, PT, RO	AT, BE, ES, FI, IT, LT	DK, IE, LU, NL, SE, UK, DE
Tocilizumab	CY , BG, EL, HR, PT, SK	DK, FR, HU, PL, SI, UK	AT, BE, FI, LU, RO	CZ, IT, LT, NL, SE, DE
Trastuzumab	MT , BG, CZ, EL, HU, SK, UK	BE, CY, FR, HR, LU, LV	DK, ES, IT, NL, PL, RO	DE, FI, LT, SE, SI, AT
Trazodon	RO , AT, PT	HU, PL, SI	BG, CZ, SK	IT, LT, LV
Treprostinil	FR , CZ, NL	AT, EL	DE, SK	LU, IT
Ustekinumab	CY , BG, CZ, EL, HR, SK, UK	ES, FI, FR, HU, LV, SI	AT, BE, IT, LT, LU, PT	DK, IE, NL, PL, RO, SE, DE

The quartiles are four equal groups of data; each group comprising a quarter of all data. Q₁ = a group that comprises ranked data below the first quartile (=splits off the lowest 25% of data from the highest 75%), Q₂ = a group that comprises ranked data between the first quartile and the median (=cuts data set in half), Q₃ = a group that comprises ranked data between the median and third quartile (=splits off the highest 25% of data from the lowest 75%), Q₄ = a group that comprises ranked data above the third quartile.

Country abbreviations in bold in Q₁ mark the lowest priced country, country abbreviations in bold in Q₄ mark the highest priced country

Source: Pharma Price Information (PPI) service; analysis by CÖG

Table A 3:

Difference (in %) between the ex-factory price in the highest and lowest priced country and between the Austrian ex-factory price and the lowest, average and highest price respectively of the surveyed medicines, in the 28 EU Member States, 2015

Medicine	Sector	Difference in percent			
		max./min.	AT/min.	AT/Ø	AT/max.
Abirateron	out-patient	38.6	22.1	-0.6	-11.9
Adalimumab	out-patient	92.3	26.2	4.1	-34.4
Agalsidase alfa	out-patient	54.6	41.3	11.1	-8.6
Alteplase	in-patient	106.5	73.7	26.3	-15.9
Anidulafungin	in-patient	65.8	30.4	3.0	-21.4
Aripiprazol	out-patient	141.9	86.6	9.1	-22.9
Azacitidin	in-patient	54.7	34.0	12.5	-13.4
Bendamustin	in-patient	49.3	28.2	7.7	-14.2
Bevacizumab	in-patient	48.8	46.4	16.1	-1.6
Bisoprolol	out-patient	294.7	73.4	2.8	-56.1
Bortezomib	in-patient	46.2	31.7	13.6	-9.9
Cetuximab	in-patient	44.4	25.0	6.6	-13.4
Dabigatran etexilat	out-patient	46.8	6.8	-8.5	-27.3
Daclatasvir	out-patient	36.2	25.8	3.6	-7.6
Denosumab	out-patient	43.8	12.4	-2.8	-21.8
Duloxetine	out-patient	308.5	68.6	-8.7	-58.7
Emtricitabin / Tenofovir disoproxil / Efavirenz	out-patient	62.1	59.0	23.0	-1.9
Emtricitabin / Tenofovir disoproxil / Rilpivirin	out-patient	58.9	41.3	18.7	-11.0
Enoxaparin	out-patient	172.7	90.3	12.7	-30.2
Escitalopram	out-patient	537.8	0.0	-57.2	-84.3
Etanercept	out-patient	81.3	22.4	3.5	-32.5
Everolimus	out-patient	31.5	20.2	8.8	-8.6
Fingolimod	out-patient	31.1	22.4	4.3	-6.6
Formoterol / Beclometason	out-patient	70.1	31.2	2.4	-22.9
Formoterol / Budesonid	out-patient	116.4	44.6	5.1	-33.2
Glatirameracetat	out-patient	98.4	42.9	9.7	-27.9
Golimumab	out-patient	95.2	17.0	-4.5	-40.1
Imatinib	out-patient	45.1	35.1	16.7	-6.9
Infliximab	out-patient	101.5	50.2	10.7	-25.5
Insulin aspart	out-patient	164.4	70.6	-0.3	-35.5
Interferon beta 1a	out-patient	175.9	66.2	9.4	-39.7
Ipilimumab	in-patient	45.7	36.0	8.8	-6.6
Lenalidomid	out-patient	125.5	59.5	11.6	-29.2
Linagliptin	out-patient	52.4	18.2	-4.3	-22.5
Metformin / Sitagliptin	out-patient	38.9	16.1	-2.5	-16.4
Paclitaxel	in-patient	72.4	49.7	11.3	-13.2
Panitumumab	in-patient	52.6	32.8	8.6	-13.0
Pantoprazol	out-patient	922.1	77.4	-47.9	-82.6
Pegfilgrastim	out-patient	94.5	17.7	-6.7	-39.5
Pemetrexed	in-patient	137.4	86.6	35.2	-21.4
Pomalidomid	out-patient	81.2	24.1	-1.4	-31.5
Raltegravir	out-patient	47.4	14.5	-0.9	-22.3

Medicine	Sector	Difference in percent			
		max./min.	AT/min.	AT/Ø	AT/max.
Rilmenidine	out-patient	47.7	47.7	26.5	0.0
Rituximab	in-patient	55.7	45.6	21.4	-6.5
Rivaroxaban	out-patient	58.2	21.6	0.0	-23.1
Rosuvastatin	out-patient	637.3	309.3	2.4	-44.5
Salmeterol	out-patient	74.7	59.4	15.4	-8.7
Simeprevir	out-patient	39.1	37.0	9.7	-1.5
Sitagliptin	out-patient	64.1	33.9	1.1	-18.4
Sofosbuvir	out-patient	18.7	6.9	-1.6	-9.9
Sugammadex	in-patient	101.1	20.7	-2.6	-40.0
Sunitinib	out-patient	55.4	40.0	10.8	-9.9
Teicoplanin	in-patient	874.1	766.9	90.5	-11.0
Tenofovir disoproxil / Emtricitabin	out-patient	106.6	81.0	30.7	-12.4
Tiotropiumbromid	out-patient	68.0	29.3	8.5	-23.0
Tocilizumab	out-patient	69.4	16.4	-0.8	-31.3
Trastuzumab	in-patient	42.5	42.5	23.2	0.0
Trazodon	out-patient	437.1	4.9	-43.2	-80.5
Treprostinil	out-patient	77.0	13.5	-9.9	-35.9
Ustekinumab	out-patient	63.9	21.8	4.1	-25.7
<i>Average (all surveyed medicines)</i>		<i>131.3</i>	<i>54.6</i>	<i>6.0</i>	<i>-23.8</i>
<i>Average (all without generic competitors)</i>		<i>69.6</i>	<i>34.5</i>	<i>7.1</i>	<i>-19.2</i>
<i>Average (surveyed medicines in the out-patient sector)</i>		<i>135.1</i>	<i>42.8</i>	<i>1.7</i>	<i>-27.2</i>
<i>Average (out-patient, without generic competitors)</i>		<i>70.6</i>	<i>31.9</i>	<i>4.6</i>	<i>-21.2</i>
<i>Average (surveyed medicines in the in-patient sector)</i>		<i>119.8</i>	<i>90.0</i>	<i>18.8</i>	<i>-13.4</i>
<i>Average (in-patient, without generic competitors)</i>		<i>66.8</i>	<i>42.1</i>	<i>14.4</i>	<i>-13.6</i>

max./min. = difference between price of the medicine in the highest priced country and the price in the lowest priced country , AT/Ø = difference (in %) between the price in Austria and the average price of the medicine in the surveyed countries, AT/max. = difference (in %) between the price in Austria and the price in the highest priced country, AT/min. = difference (in %) between the price in Austria and the lowest priced country.

Without generic competitors: Refers to those 46 products (34 out-patient and 12 in-patient) of the sample, for which no generic competitor exists

How to read this table: The price of rituximab in Austria is 45.6 % higher than that the one in the lowest-priced country; it is 21.4 % above the EU average and is 6.5 % lower than the price in the highest-priced country.

Source: Pharma Price Information (PPI) service; analysis by GÖG

Table A 4:

Statistical overview of the pharmacy purchasing prices (unit price) of surveyed medicines in the out-patient sector in the 28 EU Member States, 2015

Medicine	min.	Q1	median	Q3	max.	Ø	PPP AT	SD	IQR
Abirateron	23.4797	26.1250	26.3620	28.3962	33.8753	27.2879	26.3228	2.4197	2.2712
Adalimumab	401.0432	432.0350	480.6800	517.9160	762.2400	488.2115	499.3700	74.9697	85.8810
Agalsidase alfa	1,368.8595	1,587.7203	1,686.5354	1,854.8650	2,044.1000	1,703.3032	1,857.1600	189.8115	267.1447
Aripiprazol	2.0937	2.8475	3.4425	3.9169	4.7587	3.4825	3.9169	0.7725	1.0694
Bisoprolol	0.0700	0.0916	0.1115	0.1461	0.2923	0.1264	0.1298	0.0545	0.0545
Dabigatran etexilat	0.9964	1.0376	1.0774	1.2226	1.5238	1.1291	1.0525	0.1265	0.1850
Daclatasvir	303.5710	357.5655	362.0305	372.9778	404.9487	359.6945	358.2329	27.2344	15.4123
Denosumab	284.5557	297.7300	314.5586	326.2831	429.8954	318.9132	314.5586	34.1079	28.5531
Duloxetine	0.5502	0.8045	1.0433	1.2238	2.2740	1.0729	0.9945	0.3422	0.4194
Emtricitabin / Tenofovir disoproxil / Efavirenz	20.8971	24.6432	25.8083	32.0351	33.4563	27.0732	32.8107	4.2934	7.3919
Emtricitabin / Tenofovir disoproxil / Rilpivirin	22.2947	23.0034	25.3064	29.5425	36.1646	26.6837	30.8713	4.3851	6.5391
Enoxaparin	1.9543	3.0969	3.3364	3.6520	5.4594	3.2754	3.9360	0.8644	0.5551
Escitalopram	0.2369	0.3963	0.5751	0.6370	1.4894	0.5587	0.2500	0.2626	0.2407
Etanercept	200.9355	221.7934	235.7020	254.0966	361.4000	241.2576	243.4600	34.5185	32.3033
Everolimus	99.9031	106.5934	117.2757	124.4529	134.2112	115.6704	120.1047	10.5649	17.8595
Fingolimod	50.6271	55.8080	59.9960	61.6037	72.8378	59.5937	60.3514	4.8913	5.7957
Formoterol / Beclometason	0.2277	0.2450	0.2850	0.3146	0.3781	0.2864	0.3011	0.0421	0.0696
Formoterol / Budesonid	0.2314	0.2656	0.2998	0.3591	0.5136	0.3271	0.3545	0.0750	0.0935
Glatirameracetat	21.5495	25.5721	27.3746	30.4905	42.2260	28.4202	30.3479	4.5803	4.9184
Golimumab	828.5271	904.1078	973.0100	1,091.1812	1,585.7300	1,013.1774	950.6400	171.4176	187.0734
Imatinib	65.1664	70.7648	74.9095	81.7706	92.4050	76.2862	85.8870	7.4996	11.0057
Infliximab	453.5097	493.5269	538.4622	578.9595	766.3067	544.2265	569.3133	75.9781	85.4326

Medicine	min.	Q1	median	Q3	max.	Ø	PPP AT	SD	IQR
Insulin aspart	5.4674	5.9117	6.2446	6.6638	9.5762	6.5098	6.5217	1.0484	0.7521
Interferon beta 1a	129.0986	169.4839	195.6600	230.4137	361.3750	204.0581	217.8725	51.6991	60.9299
Lenalidomid	163.4350	209.1357	243.6584	262.8738	394.0862	241.8204	262.1695	48.5692	53.7381
Linagliptin	1.0507	1.1618	1.2038	1.3521	1.6480	1.2542	1.2354	0.1370	0.1903
Metformin / Sitagliptin	0.5445	0.6160	0.6627	0.7198	0.8240	0.6653	0.6658	0.0731	0.1038
Pantoprazol	0.1200	0.2201	0.3052	0.4125	1.1965	0.3821	0.2277	0.3047	0.1925
Pegfilgrastim	731.4057	840.8955	904.0433	998.5918	1,411.5400	923.9877	854.7400	162.2249	157.6963
Pomalidomid	390.5479	406.0714	423.8097	453.6190	653.0517	452.1029	429.5010	77.9947	47.5476
Raltegravir	8.8988	9.5528	10.1966	10.9005	14.0272	10.4317	10.3957	1.2568	1.3476
Rilmenidine	0.2129	0.2301	0.2483	0.2729	0.3278	0.2551	0.3278	0.0391	0.0428
Rivaroxaban	1.9186	2.0400	2.1525	2.5200	2.9135	2.2892	2.3436	0.3308	0.4800
Rosuvastatin	0.1832	0.6418	0.6676	0.7921	1.2900	0.7185	0.7532	0.2050	0.1503
Salmeterol	0.5364	0.6022	0.7330	0.8328	0.9462	0.7274	0.8591	0.1250	0.2306
Simeprevir	239.1415	299.0140	317.6000	328.5921	369.9365	311.7736	328.4579	31.1895	29.5781
Sitagliptin	0.9601	1.1523	1.2706	1.3719	1.6480	1.2831	1.3315	0.1727	0.2196
Sofosbuvir	469.1443	488.9769	505.5991	538.3975	577.7957	516.2557	488.9432	32.1403	49.4207
Sunitinib	137.8223	151.3086	164.4160	177.8557	195.9120	164.7047	176.3507	16.6787	26.5471
Tenofovir disoproxil / Emtricitabin	14.2123	15.2474	17.3509	21.8160	27.2158	18.4862	23.3147	3.7719	6.5686
Tiotropiumbromid	0.9267	0.9643	1.0722	1.2864	1.5647	1.1395	1.2708	0.2028	0.3221
Tocilizumab	594.0238	643.3398	688.0320	718.9858	1,011.1780	703.0300	696.9400	98.0873	75.6459
Trazodon	0.1868	0.1984	0.2134	0.2593	1.0101	0.3399	0.1933	0.2840	0.0610
Treprostinil	15,807.4500	17,595.0200	18,635.5000	19,742.3560	29,236.7906	19,764.9275	17,968.5700	4,444.7438	2,147.3360
Ustekinumab	2,604.1092	2,785.6400	2,970.8321	3,058.3555	4,088.5000	3,013.6740	3,033.5200	330.5268	272.7155

Ø = average (= arithmetic average of the available price data), PPP AT = pharmacy purchasing price (unit price) in Austria, IQR = interquartile range (= the difference between first and third quartile, comprising 50% of data points), max. = highest price of the compared medicines, median = 'middle' value of a data set (= value that cuts data set in half), min. = lowest price of the compared medicines, Q1 = first quartile (= value that splits off the lowest 25% of data from the highest 75%), Q3 = third quartile (= value that splits off the highest 25% of data from the lowest 75%), SD = standard deviation

Source: Pharma Price Information (PPI) service; analysis by GÖG

Table A 5:

Statistical overview of the pharmacy retail prices net (unit price) of the surveyed medicines in the out-patient sector in the 28 EU Member States, 2015

Medicine	min.	Q1	median	Q3	max.	Ø	PRP net AT	SD	IQR
Abirateron	26.4085	28.7281	27.5037	28.9211	43.4431	28.7281	34.0552	4.3331	2.5126
Adalimumab	449.1533	521.6106	489.6328	557.9573	789.3622	521.6106	646.0599	103.6835	108.8041
Agalsidase alfa	1,656.1331	1,817.7040	1,752.0578	2,009.6530	2,402.7008	1,817.7040	2,402.7008	302.1302	353.5199
Aripiprazol	3.2602	4.0196	3.7855	4.6607	5.7746	4.0196	5.7746	0.9360	1.4005
Bisoprolol	0.1118	0.1777	0.1525	0.2233	0.4508	0.1777	0.2314	0.0948	0.1115
Dabigatran etexilat	1.1736	1.3071	1.2704	1.3941	1.6809	1.3071	1.6809	0.1682	0.2204
Daclatasvir	358.9453	391.6841	377.6925	399.6363	535.8442	391.6841	463.4638	57.3215	40.6910
Denosumab	317.2446	343.0050	339.2915	358.6385	423.1091	343.0050	416.0038	36.7140	41.3939
Duloxetine	1.0276	1.2686	1.2050	1.4346	2.6462	1.2686	1.5897	0.3824	0.4070
Emtricitabin / Tenofovir disoproxil / Efavirenz	25.8543	30.7829	30.0030	35.1482	42.4488	30.7829	42.4488	5.9873	9.2939
Emtricitabin / Tenofovir disoproxil / Rilpivirin	24.1820	29.7593	27.9565	34.1087	39.9398	29.7593	39.9398	5.9967	9.9268
Enoxaparin	2.6701	3.8838	3.6854	4.6355	6.2917	3.8838	6.2917	1.2477	1.9654
Escitalopram	0.5338	0.6988	0.6482	0.7887	1.9596	0.6988	0.4456	0.3427	0.2549
Etanercept	224.3473	259.8862	255.3929	268.0978	374.3695	259.8862	314.9764	48.6377	43.7505
Everolimus	105.8102	122.2938	117.3392	132.9064	182.4442	122.2938	155.3854	21.0727	27.0962
Fingolimod	57.8147	62.9214	60.7999	66.0796	87.0477	62.9214	78.0797	8.6443	8.2649
Formoterol / Beclometason	0.2741	0.3452	0.3433	0.4088	0.4813	0.3452	0.4813	0.0707	0.1347
Formoterol / Budesonid	0.3095	0.3848	0.3637	0.4486	0.5793	0.3848	0.5667	0.1015	0.1391
Glatirameracetat	26.0521	30.3264	29.1910	34.3014	43.7764	30.3264	39.2625	6.0059	8.2492
Golimumab	925.3178	1,083.6408	998.8421	1,206.8465	1,641.8119	1,083.6408	1,229.8905	218.4908	281.5287
Imatinib	72.0537	79.8757	78.3391	82.8162	111.1163	79.8757	111.1163	12.0133	10.7625
Infliximab	494.1767	581.6424	544.7107	645.1429	792.1325	581.6424	736.5491	115.2986	150.9661
Insulin aspart	6.9301	7.6811	7.4428	7.7385	11.5654	7.6811	10.4250	1.4420	0.8084
Interferon beta 1a	169.8619	210.3656	198.8349	231.6887	374.3438	210.3656	281.8725	59.8094	61.8268

Medicine	min.	Q1	median	Q3	max.	Ø	PRP net AT	SD	IQR
Lenalidomid	214.4098	252.9871	261.4851	271.9226	360.1874	252.9871	339.1818	49.2986	57.5128
Linagliptin	1.3210	1.4857	1.4084	1.5468	2.0097	1.4857	1.975	0.2413	0.2258
Metformin / Sitagliptin	0.6972	0.7957	0.7664	0.8729	1.0642	0.7957	1.0642	0.1318	0.1757
Pantoprazol	0.3812	0.5659	0.4568	0.5803	1.5363	0.5659	0.4059	0.4024	0.1991
Pegfilgrastim	793.1151	975.5803	941.8302	1,104.7372	1,462.3962	975.5803	1,105.8199	204.8286	311.6221
Pomalidomid	429.3868	512.3447	461.7948	503.4313	937.6190	512.3447	555.6669	166.6623	74.0445
Raltegravir	10.0442	11.1864	10.5580	12.2626	13.6424	11.1864	13.4494	1.3750	2.2184
Rilmenidine	0.2640	0.3264	0.2939	0.3411	0.5616	0.3264	0.5616	0.0969	0.0771
Rivaroxaban	2.3665	2.6906	2.5071	3.0136	3.6115	2.6906	3.6115	0.4522	0.6471
Rosuvastatin	0.7754	0.9005	0.8896	0.9882	1.6124	0.9005	1.2474	0.2845	0.2128
Salmeterol	0.6821	0.8500	0.8001	0.9887	1.3733	0.8500	1.3733	0.2057	0.3066
Simeprevir	301.4256	333.5133	327.1154	359.8084	482.2597	333.5133	424.9424	57.4085	58.3828
Sitagliptin	1.3030	1.5280	1.4379	1.7376	2.1284	1.5280	2.1284	0.2873	0.4346
Sofosbuvir	512.7131	567.0350	541.7065	593.2795	803.7662	567.0350	632.5703	88.8784	80.5664
Sunitinib	149.3388	173.8191	173.5345	181.5622	264.0724	173.8191	228.1537	31.6735	32.2233
Tenofovir disoproxil / Emtricitabin	15.9542	20.2292	19.3603	22.8152	30.1634	20.2292	30.1634	4.8781	6.8609
Tiotropiumbromid	1.1025	1.3415	1.2601	1.5079	2.0313	1.3415	2.0313	0.2757	0.4054
Tocilizumab	645.5522	766.8798	731.9750	833.6749	1,119.6455	766.8798	901.6661	147.7253	188.1227
Trazodon	0.2437	0.4257	0.2727	0.3706	1.2362	0.4257	0.3312	0.3372	0.1270
Treprostinil	18,771.0709	22,999.6578	19,137.1992	22,235.8968	41,976.7273	22,999.6578	23,246.8374	9,593.6634	3,464.8259
Ustekinumab	2,819.6007	3,199.8492	3,080.9642	3,487.7881	4,265.3727	3,199.8492	3,924.6165	486.6827	668.1875

Ø = average (= arithmetic average of the available price data), PRP net AT = pharmacy retail price net (unit price) in Austria, IQR = interquartile range (= the difference between first and third quartile, comprising 50% of data points), max. = highest price of the compared medicines, median = 'middle' value of a data set (= value that cuts data set in half), min. = lowest price of the compared medicines, Q1 = first quartile (= value that splits off the lowest 25% of data from the highest 75%), Q3 = third quartile (= value that splits off the highest 25% of data from the lowest 75%), SD = standard deviation

Source: Pharma Price Information (PPI) service; analysis by CÖG

Table A 6:

Difference (in %) between the Austrian price and the lowest, average and highest price, respectively, of the surveyed out-patient medicines, displayed for the price levels of ex-factory price, pharmacy purchasing price, pharmacy retail price net and pharmacy retail price net gross, in the 28 EU Member States, 2015

Medicine	Ex-factory price			PPP			PRP net			PRP gross		
	AT/min.	AT/Ø	AT/max.	AT/min.	AT/Ø	AT/max.	AT/Min.	AT/Ø	AT/max.	AT/min.	AT/Ø	AT/max.
Abirateron	22.1	-0.6	-11.9	12.1	-3.5	-22.3	44.1	18.5	-21.6	58.5	19.3	-21.6
Adalimumab	26.2	4.1	-34.4	24.5	2.3	-34.5	59.5	23.9	-18.2	61.2	24.1	-24.3
Agalsidase alfa	41.3	11.1	-8.6	35.7	9.0	-9.1	68.4	32.2	0.0	74.7	31.8	-0.3
Aripiprazol	86.6	9.1	-22.9	87.1	12.5	-17.7	98.9	43.7	0.0	110.3	46.7	-1.0
Bisoprolol	73.4	2.8	-56.1	85.5	2.7	-55.6	230.6	30.2	-48.7	264.3	32.7	-45.1
Dabigatran etexilat	6.8	-8.5	-27.3	5.6	-6.8	-30.9	59.5	28.6	0.0	67.1	29.7	0.0
Daclatasvir	25.8	3.6	-7.6	18.0	-0.4	-11.5	42.6	18.3	-13.5	53.6	19.2	-13.5
Denosumab	12.4	-2.8	-21.8	10.5	-1.4	-26.8	44.6	21.3	-1.7	51.5	22.5	-1.7
Duloxetine	68.6	-8.7	-58.7	80.7	-7.3	-56.3	105.0	25.3	-39.9	104.9	27.2	-44.5
Emtricitabin / Tenofovir disoproxil / Efavirenz	59.0	23.0	-1.9	57.0	21.2	-1.9	75.3	37.9	0.0	88.6	38.5	0.0
Emtricitabin / Tenofovir disoproxil / Rilpivirin	41.3	18.7	-11.0	38.5	15.7	-14.6	68.5	34.2	0.0	76.5	34.9	-11.0
Enoxaparin	90.3	12.7	-30.2	101.4	20.2	-27.9	177.0	62.0	0.0	190.1	60.9	-10.5
Escitalopram	0.0	-57.2	-84.3	5.5	-55.3	-83.2	56.8	-36.2	-77.3	64.5	-35.8	-78.9
Etanercept	22.4	3.5	-32.5	21.2	0.9	-32.6	54.3	21.2	-15.9	57.2	22.0	-22.2
Everolimus	20.2	8.8	-8.6	20.2	3.8	-10.5	55.3	27.1	-14.8	56.9	27.1	-14.8
Fingolimod	22.4	4.3	-6.6	19.2	1.3	-17.1	48.9	24.1	-10.3	46.0	24.7	-10.3
Formoterol / Beclometason	31.2	2.4	-22.9	32.2	5.1	-20.4	90.4	39.4	0.0	99.5	40.6	-1.8
Formoterol / Budesonid	44.6	5.1	-33.2	53.2	8.4	-31.0	119.5	47.3	-2.2	130.0	48.9	-13.9
Glatirameracetat	42.9	9.7	-27.9	40.8	6.8	-28.1	81.2	29.5	-10.3	89.9	30.1	-17.1
Golimumab	17.0	-4.5	-40.1	14.7	-6.2	-40.1	46.2	13.5	-25.1	44.9	13.7	-30.8
Imatinib	35.1	16.7	-6.9	31.8	12.6	-7.1	68.1	39.1	0.0	76.1	41.7	0.0
Infliximab	50.2	10.7	-25.5	25.5	4.6	-25.7	76.8	26.6	-7.0	76.8	26.0	-14.0
Insulin aspart	70.6	-0.3	-35.5	19.3	0.2	-31.9	79.7	35.7	-9.9	88.3	35.3	-16.7
Interferon beta 1a	66.2	9.4	-39.7	68.8	6.8	-39.7	116.2	34.0	-24.7	118.2	33.8	-30.4

Medicine	Ex-factory price			PPP			PRP net			PRP gross		
	AT/min.	AT/Ø	AT/max.	AT/min.	AT/Ø	AT/max.	AT/Min.	AT/Ø	AT/max.	AT/min.	AT/Ø	AT/max.
Lenalidomid	59.5	11.6	-29.2	60.4	8.4	-33.5	83.4	34.1	-5.8	97.5	34.3	-5.8
Linagliptin	18.2	-4.3	-22.5	17.6	-1.5	-25.0	70.3	32.9	-1.7	78.4	35.0	-1.8
Metformin / Sitagliptin	16.1	-2.5	-16.4	22.3	0.1	-19.2	74.2	33.7	0.0	82.5	35.7	0.0
Pantoprazol	77.4	-47.9	-82.6	89.8	-40.4	-81.0	238.2	-28.3	-73.6	272.0	-29.4	-75.6
Pegfilgrastim	17.7	-6.7	-39.5	16.9	-7.5	-39.4	48.6	13.3	-24.4	49.1	14.0	-30.1
Pomalidomid	24.1	-1.4	-31.5	10.0	-5.0	-34.2	42.0	8.5	-40.7	56.2	8.7	-40.7
Raltegravir	14.5	-0.9	-22.3	16.8	-0.3	-25.9	43.2	20.2	-1.4	49.0	21.2	-1.4
Rilmenidine	47.7	26.5	0.0	54.0	28.5	0.0	119.9	72.1	0.0	130.6	76.8	0.0
Rivaroxaban	21.6	0.0	-23.1	22.2	2.4	-19.6	80.7	34.2	0.0	82.4	34.9	0.0
Rosuvastatin	309.3	2.4	-44.5	311.1	4.8	-41.6	467.4	38.5	-22.6	472.4	39.4	-28.5
Salmeterol	59.4	15.4	-8.7	60.2	18.1	-9.2	129.6	61.6	0.0	140.6	64.5	0.0
Simeprevir	37.0	9.7	-1.5	37.3	5.4	-11.2	77.6	27.4	-11.9	79.2	28.4	-11.9
Sitagliptin	33.9	1.1	-18.4	38.7	3.8	-19.2	86.0	39.3	0.0	96.3	41.1	0.0
Sofosbuvir	6.9	-1.6	-9.9	4.2	-5.3	-15.4	34.7	11.6	-21.3	48.1	11.6	-21.3
Sunitinib	40.0	10.8	-9.9	28.0	7.1	-10.0	65.0	31.3	-13.6	68.0	31.8	-13.6
Tenofovir disoproxil / Emtricitabin	81.0	30.7	-12.4	64.0	26.1	-14.3	106.1	49.1	0.0	106.6	48.8	-10.8
Tiotropiumbromid	29.3	8.5	-23.0	37.1	11.5	-18.8	100.7	51.4	0.0	110.4	53.6	-0.9
Tocilizumab	16.4	-0.8	-31.3	17.3	-0.9	-31.1	48.6	17.6	-19.5	47.8	16.9	-20.6
Trazodon	4.9	-43.2	-80.5	3.5	-43.1	-80.9	52.9	-22.2	-73.2	54.2	-24.1	-73.7
Treprostinil	13.5	-9.9	-35.9	13.7	-9.1	-38.5	46.9	1.1	-44.6	58.2	1.3	-44.6
Ustekinumab	21.8	4.1	-25.7	16.5	0.7	-25.8	50.0	22.7	-8.0	50.6	23.1	-14.0
Average	42.8	1.7	-27.2	41.1	1.3	-28.2	89.6	27.3	-15.6	97.3	28.1	-18.2
Average without generic competitors	31.9	4.6	-21.2	28.8	3.7	-22.9	68.8	28.9	-9.9	75.6	29.6	-12.6

Ø = average, AT/Ø = difference (in %) between the price in Austria and the average price of the medicine in the surveyed countries, AT/max. = difference (in %) between the price in Austria and the price in the highest priced country, AT/min. = difference (in %) between the price in Austria and the lowest priced country, max. = maximum (highest price in comparison), min. = minimum (lowest price in comparison), PPP = pharmacy purchasing price, PRP = pharmacy retail price.

How to read this table: The PPP for lenalidomid in Austria is 60.4 percent higher than the one in the lowest-priced country for lenalidomid; it is 8.4 percent above the average and is 33.5 percent lower than the price in the highest-priced country.

Source: Pharma Price Information (PPI) service; analysis by CÖG