

# Is International Reference Pricing Applied Consistently at Pharmaceutical Price Re-evaluation for Retail and Speciality Products?

Jensen C<sup>1</sup>, Danev V<sup>2</sup>, Craddy P<sup>3</sup>, Foxon G<sup>2</sup>

<sup>1</sup>Boehringer Ingelheim, <sup>2</sup>Remap Consulting, Cheshire, United Kingdom, <sup>3</sup>Remap Consulting, Zug, Switzerland



## Introduction/Objective

- International reference pricing (IRP) is a price control mechanism whereby medicine prices are calculated based on their prices in other markets to ensure the country determines an appropriate price.
- IRP is used extensively to determine the launch price of new pharmaceuticals in Europe and some countries use IRP during product re-evaluations. In some cases, IRP is used formally, with strictly defined referent baskets and re-evaluation frequencies, whereas other countries use it informally just to inform and sense-check medicine prices.
- The aim of this research is to determine how consistently IRP is applied in pharmaceutical price re-evaluation in Romania, Switzerland, Slovenia and Turkey and assess if IRP is applied stringently for retail and speciality products across these markets.

## Methods

- To be included in the analysis, countries had to use IRP at pharmaceutical price re-evaluation, have had stable IRP rules over the past five years and refer to no more than 12 countries. Thus, four countries were identified - Romania, Switzerland, Slovenia and Turkey. Their IRP rules and country baskets are presented in Table 1.

Table 1: IRP rules, country baskets and frequency of re-evaluations of the countries in scope

Country	Flag	IRP rule	IRP basket	Frequency of re-evaluation
Romania		Average of three lowest ex-factory prices	Austria, Belgium, Bulgaria, Czech Republic, Germany, Greece, Hungary, Italy, Lithuania, Poland, Slovakia, Spain	60 months
Switzerland		Average ex-factory price	Austria, Belgium, Denmark, Finland, France, Germany, Netherlands, Sweden, UK	36 months
Slovenia		Lowest ex-factory price	Austria, France, Germany	6 months
Turkey		Lowest ex-factory price	France, Greece, Italy, Portugal, Spain	12 months

- Five retail products (Jardiance, Brintellix, Relvar Ellipta, Enstilar, Entresto) and five specialty products (Eylea, Ofev, Uptravi, Lymparza, Actilyse) which cover a variety of therapeutic areas were initially analysed. Historic price data on the most widely sold pack sizes of these products was provided by Boehringer Ingelheim and IRP rules from 2017-2022 were extracted from public records. One product, Enstilar, was excluded from the analysis as it has not been launched in the countries in scope.
- Analysis was conducted to compare the IRP price against the published price at an ex-factory level to assess how strictly IRP was applied over the years, and if it was applied consistently for retail and specialty products. The drug IRP prices were calculated taking into account IRP rules for all countries each year. Mean annual currency exchange rates were applied, where necessary, to convert local currencies to Euro.

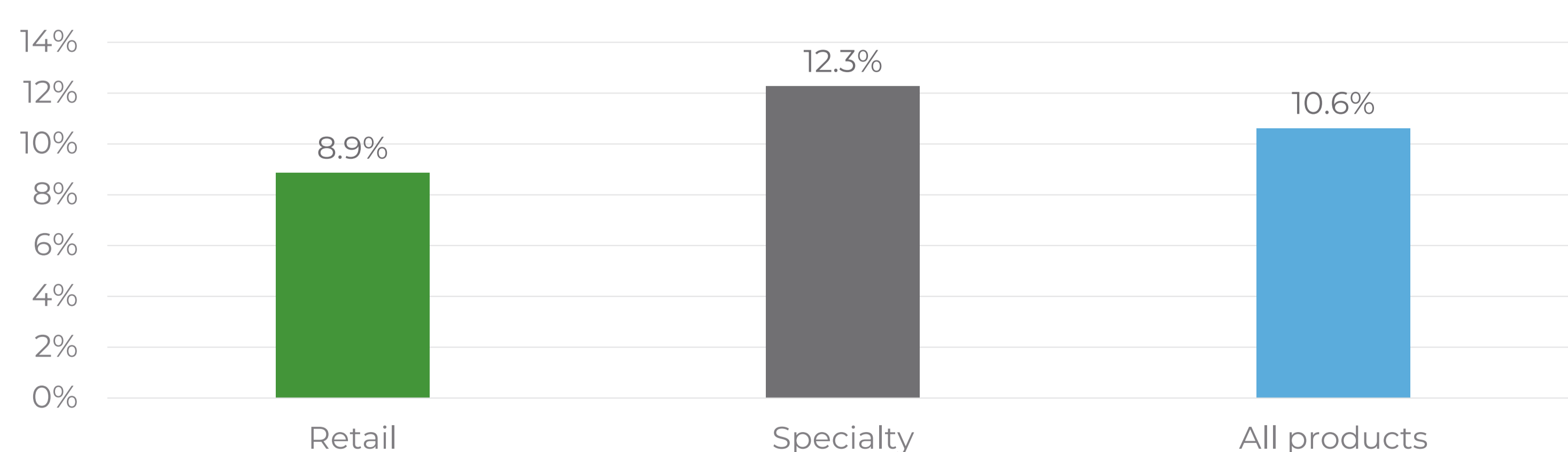
## Results

Table 2: Difference in ex-factory price and IRP price across 9 products

Type	Product												
		Real price	IRP price	Difference	Real price	IRP price	Difference	Real price	IRP price	Difference	Real price	IRP price	Difference
Retail products	Jardiance	€31.65	€28.27	11.9%	€43.20	€38.69	11.7%	€33.00	€33.00	0.0%	€33.00	€33.00	0.0%
	Brintellix	€19.44	€22.38	-13.1%	€36.32	€29.09	24.9%	€20.20	€20.20	0.0%	€20.20	€20.20	0.0%
	Relvar Ellipta	€30.43	€25.32	20.2%	€38.15	€28.11	35.7%	€35.52	€25.13	41.3%	€24.76	€25.13	-1.5%
	Entresto	€100.67	€110.83	-9.2%	€120.26	€119.05	1.0%	€115.41	€104.98	9.9%	NA	€104.98	NA
Speciality products	Eylea	€540.70	€615.79	-12.2%	€886.68	€775.25	14.4%	NA	€565.00	NA	€565.00	€565.00	0.0%
	Ofev	€1,866.39	€1,893.37	-1.4%	€2,540.76	€2,207.22	15.1%	€2,060.41	€1,978.80	4.1%	€1,996.72	€1,978.80	0.9%
	Uptravi	€2,512.07	€3,873.93	-35.2%	€4,317.86	€3,238.53	33.3%	€2,115.00	€2,115.00	0.0%	€2,973.21	€2,115.00	40.6%
	Lymparza	€2,051.75	€2,547.42	-19.5%	NA	2,376.46	NA	€2,529.64	€2,387.93	5.9%	NA	€2,387.93	NA
	Actilyse	€311.55	€306.08	1.8%	NA	512.91	NA	€574.96	€332.40	73.0%	€583.23	€332.40	75.5%

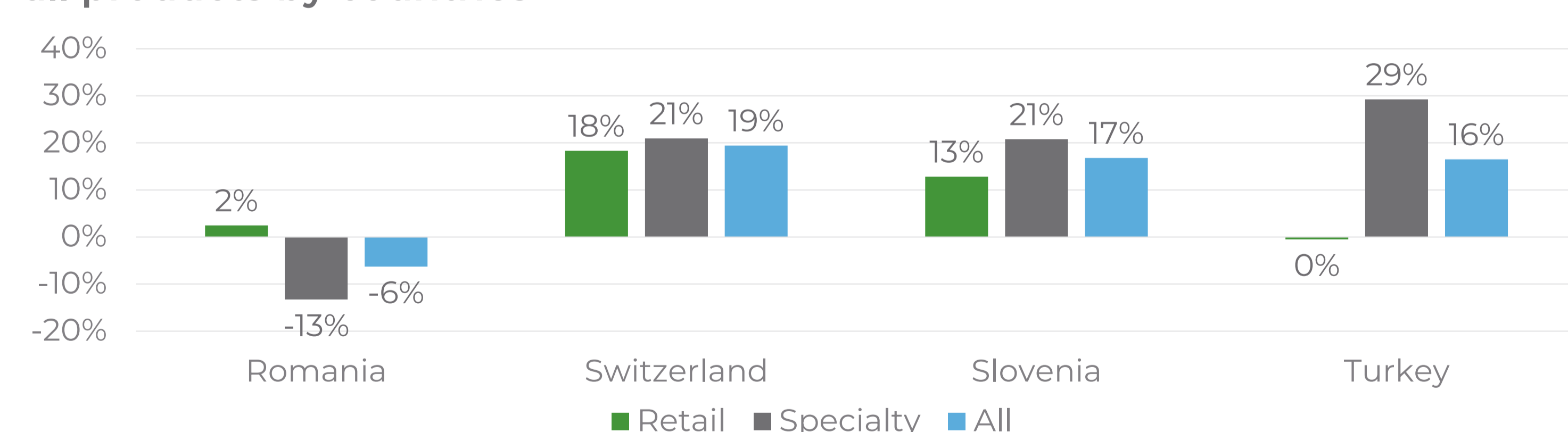
- The individual results from the analysis for each drug are presented in Table 2, which shows data on their real price, IRP price and % difference between the two.
- Across all products and countries in scope, public ex-factory prices in the period 2017-2022 were 10.6% higher than IRP prices.
- The difference for specialty products (12.3%) was higher than retail products (8.9%) across all markets (Figure 1).

Figure 1: Average difference between ex-factory prices and IRP prices across all products in all countries in scope



- Romania was associated with the lowest price difference, where ex-factory prices were on average 6.3% lower than IRP prices (Figure 2). In Turkey, Slovenia and Switzerland public ex-factory prices were 16.5%, 16.8% and 19.4% higher than IRP prices for all products, respectively.
- Retail product ex-factory prices in Turkey and Romania were consistent with the IRP prices, with differences of -0.5% and +2.5%, respectively.

Figure 2: Average difference between ex-factory prices and IRP prices across all products by countries



## Discussion and Conclusion

- The results from the analysis indicate that Romania applies IRP at its price re-evaluations processes more consistently than Switzerland, Slovenia and Turkey.
- Also based on the outputs of this research, there is a greater difference between the IRP price and ex-factory price of specialty medicines than retail products across all countries in scope. This could be explained by the generally higher prices of specialty drugs than retail products, hence a wider price differential.
- Ex-factory prices tended to be higher than the IRP prices, particularly in Switzerland and Slovenia, which suggests that factors other than IRP contributed to price setting in these countries.
- It would be interesting to continue to monitor these prices to see if IRP is applied more stringently at national price re-evaluations.