

# OVERVIEW AND IMPACT OF PHARMACEUTICAL REFERENCE PRICING

WHITEPAPER

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## ABSTRACT

The price of a medicine is generally a function of the market and changes over time. An innovator drug when launched under patent has a high price. Once the patent expires and competitor generic products emerge into the market, prices are drastically reduced and sometimes there is a 90% fall compared to originator brand. Access to novel high-priced medicines have posed challenges both in high and low income countries equally. It has led to significant financial stress to individuals and have high impact on healthcare systems to provide access to necessary medicines to their citizens. In the European Union (EU) countries which are implementing universal health coverage and have large public funded medicine expenditure, have adopted different strategies to control and regulate medicine prices.

A few policy measures for managing, measuring and monitoring prices to promote access to patented drugs. They may vary from country to country and use a range of policies

- Statutory pricing, negotiations, volume based price agreements.
- Value and outcomes to be key determinants for pricing.
- Reference pricing both internal and external.

## KEY TAKEAWAYS

Understanding of pharmaceutical reference pricing system _____	2
Impact of reference pricing on pharmaceutical revenue _____	4
A solution approach to maximize global revenue _____	5

## INTRODUCTION

A price regulation policy is widely adopted as a cost containment tool by the governments for publicly reimbursed prescription and innovative medicines. Its aim is to reduce the utilization of pharmaceutical products and requires patients to pay a co-pay, which is the difference between the drug's pharmacy retail price or list price and reference price that is set by the government. Reference prices are either externally or internally determined.



### External Reference Pricing

External reference pricing (ERP) or international price comparison is the practice of regulating the price of a drug in one country, by comparing with the price in a "basket" of other reference countries. The price of similar drugs in basket countries are used as a benchmark to set or negotiate the price of a product within a specific country. United Kingdom (UK) is the light house for most of the countries as the pharmaceutical prices in UK is widely referenced by other countries for pricing the branded medicines.

### Internal Reference Pricing

Internal reference pricing (IRP) is to set the price of a drug compared to the domestic price of therapeutically equivalent drugs. It limits the expenditure from drug reimbursement by setting a cut-off price based on the lowest price of equivalent drugs that are available in the national market. Mostly reference products will be a generic product, or the most cost-effective molecule available in a class.

**An example:** Drug 'A' costs \$2000 per month, Drug 'R' (reference drug) costs \$400, and patient co-pay is 20% of any cost above the reference price. Patient would pay \$320 per month which is calculated as  $[(2000-400) \times .2]$  for expensive drugs.

In the above example payers pay an amount which may be (lowest price, median price, average of lowest X prices) for a drug. If patients opt for a higher priced option, they must pay the difference. This approach guarantees patients to have access to care but makes patients accountable. If they don't want to go for lower priced drugs they have to pay extra to get their choice of services.

## REFERENCED COUNTRIES WITH IRP

Country	Bulgaria	Croatia	Czechia	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovakia	Referenced Countries
Austria					R			R	R	R	4
Belgium	R		R		R			R	R	R	6
Bulgaria					R		R	R	R	R	5
Cyprus					R			R	R	R	4
Czechia	R	R			R	R	R	R	R	R	8
Croatia			R		R			R	R	R	5
Denmark	R		R		R	R		R	R	R	7
Estonia	R				R	R	R	R	R	R	7
Finland	R		R		R			R	R	R	6
France	R	R	R		R			R	R	R	7
Germany					R			R	R	R	4
UK			R		R			R	R	R	5
Greece	R		R		R			R	R	R	6
Hungary	R		R			R	R	R	R	R	7
Iceland			R		R			R	R		4
Ireland			R		R			R		R	4
Italy	R	R	R		R			R	R	R	7
Latvia	R		R	R	R		R	R	R	R	8
Liechtenstein			R		R			R		R	4
Lithuania	R		R	R	R	R		R	R	R	8
Luxembourg					R			R	R	R	4
Malta					R			R	R	R	4
Netherlands			R		R			R	R	R	5
Norway			R		R			R			3
Poland	R		R		R		R		R	R	6
Portugal	R		R		R			R	R	R	6
Romania	R				R	R	R	R		R	6
Slovakia	R	R	R	R	R	R	R	R	R		9
Slovenia	R		R		R			R	R	R	6
Spain	R	R	R		R			R	R	R	7
Sweden			R		R			R	R	R	5
Switzerland			R		R			R			3

Reference countries in R  
Source<sup>1</sup>

## IMPACT TO PHARMACEUTICAL WITH IRP



The reimbursement price set in one country have both a direct and indirect impact on the reimbursement prices in other referenced countries.

- **Direct Impact:** Country A uses the price of country B to set its own prices.
- **Indirect Impact:** Country C which is included in the basket of country B; and thereby the prices of country A will be influenced by the prices in country C even though A is not in its basket



IRP can erode 15% of product price throughout its lifecycle. IRP is not only limited to the European Union (EU) but used in 87 of 196 countries across the world to drive down the drug costs.



Over the last few years some of the EU countries changed their IRP rules and each change had a significant result on price erosion which ended up to 80% price cut in its referenced countries.



Developing a successful international pricing strategy for pharmaceutical companies has become more complex and challenging in a value-based realm.



# A SOLUTION APPROACH TO MAXIMIZE GLOBAL REVENUE

Few pharma companies have started steps towards implementing a global pricing management system and streamline the process. A right data management solution with artificial intelligence (AI) and advanced analytical platform would enable pharmaceutical companies to make optimal decisions and improve product margins at launch and through the product lifecycle. A solution would encompass the following capabilities:



## Accurate Pricing and Market Access Data

Collect and integrate all relevant pricing data as a single point of truth. Global pricing group local, central and across functional teams can access and retrieve the information they need rapidly and easily to have complete optimization analysis.



## Collaboration

Pricing team, regardless of their geographical location can make informed pricing decisions and more quickly react to market dynamics. They can monitor price performance to identify risks and opportunities globally and maximize global revenue by generating highly accurate forecasts of the country.



## Perform Trade-off Analysis

Simulate and forecast new product launches to see the effect of different pricing and sequence strategies. Compare various launch sequences and in-market scenarios to estimate revenue. Identifying the scenarios that maximizes revenues during the critical launch period.



## Global Compliance

Create approvals and workflows to share information with decision makers. Provide critical insights of revenue implications from global markets perspective with complete visibility into pricing and revenue changes. Prevent regional pricing teams from implementing price changes without global context.

## CONCLUSION

The international reference pricing (IRP) has been applied by almost all developed nations. A successful international pricing strategy for pharmaceutical companies has become more complex and challenging in the present environment. Price erosion is certain with the adoption of international reference pricing (IRP), but many companies still use old models to execute their global pricing strategies to determine optimal price of drugs. Companies have to invest in new technologies and solutions to make informed pricing decisions based on their predicted effect on reimbursement, volume and global revenue.

### References:

P.Ā.K.T.T.L.V.P.D.M.M.A.S.G.P.Z.R.A.M.C.S.E.S.A.H.A.I.A.T-S.J.G.č.A.P. (2017, December 18). Pharmaceutical Regulation in Central and Eastern European Countries: A Current Review.

<https://www.frontiersin.org/articles/10.3389/fphar.2017.00892/full>



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