

INTERNATIONAL REFERENCE PRICING TOOL

What is International Reference Pricing (IRP)?

 IRP (also known as External Reference Pricing) is the practice of a country using the price(s) of a specific pharmaceutical product in one or more other countries for the purpose of establishing the price of that same product in their country. Most high-income and many middle-income countries employ some form of price referencing in negotiations with manufacturers, either formally or informally. The US and UK are notable exceptions.

What is the Orange IRP tool?

- Orange is a user-friendly and powerful **price management** tool designed to enable the real-time forecasting of the global pricing impact of a branded launched product price change in a single market.
- The Orange tool has been developed based on publically available IRP rules, where clear relationships have been published. As we aim to maintain an up-to-date database of IRP rules Orange can also be used as a direct reference for IRP information.
- Orange currently includes approximately 70 countries. A products' pricing data for each of the countries included in the tool needs to be added by the user.
 Once this has been done various analyses can easily be produced as output.
- Users of the Orange tool can export the simulated impact of the price change in percentage terms into an Excel spreadsheet and add volumes, in order to estimate the potential overall financial impact. Graphical outputs of the Orange tool can also be transferred onto PowerPoint presentations.



How can Orange support me?

- The simulation outputs of Orange offer a guide for manufacturers in their decision-making around whether to accept or reject particular proposals around price changes in a single market. Manufacturers may refuse to accept prices offered in a country that in their view would likely significantly reduce revenues elsewhere.
- In interpreting the outputs it should be noted that the simulated figures of expected price reductions are estimates only and due to other factors impacting prices in specific markets actual prices may not always be consistent with those predicted by applying IRP rules.
 Thus all outputs of the Orange tool should be reviewed and assessed individually by the user in the context of the corresponding market.

What are the key assumptions?

- The Orange tool assumes that price changes are made as of today. In reality most national governments (or health care authorities acting on their behalf) review price changes and re-reference anywhere between quarterly and every two years (or even every five years in the cases of France and Finland). Thus, the knock-on impacts of a price change in a single market may not be immediate.
- Another feature of Orange is that the simulations are programmed so that the pricing impacts are calculated for the first "wave" of countries only i.e. those that are directly referencing the country of change. Currently, there are no subsequent adjustments for analyzing how the effects might filter further throughout the system.
- With Orange add-ins are possible to develop. Thus, the tool could have an added timeline to the analyses to reflect the estimated timing of various changes or add-ins to assess knock on effects of subsequent adjustments if that was desired by a particular company.

Further information about the Orange tool can be obtained from:

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Over how many years does it make sense to simulate the impact of a price change?

The system as programmed can currently simulate adjustments for up to five years. However, naturally the further out in time the greater the uncertainty because of the impact of factors other than IRP on price. For example, there may be changes to existing IRP rules or the introduction of new rules in countries where there is currently no price referencing. There can also be changes in the market structure, such as the introduction of tendering, government mandates on price changes independent of IRP rules (such as appeared in some countries after the 2008 financial crisis), and so on. We recommend a period of up to three years of simulations. Beyond this time the level of uncertainly may outweigh the benefit of using the tool.

How can I purchase an Orange subscription?

- ZRx Outcomes Research Inc. aims to sell an annual subscription to the Orange tool. The subscription entitles purchasers to updates of the tool, for example when new IRP rules come into place, new IRP countries emerge or when further improvements or new functionalities are added. Furthermore, a subscription entitles purchasers to access to training and helpdesk facilities when needed.
- Orange is intended as a single-user tool, meaning that it is registered per user and not per entire company. The purchase of a single Orange subscription allows for up to four individual users. The software along with any updates will be distributed via email after contract signature. ZRx Outcomes Research Inc. requires a list of all users of the tool, in order to prepare unique keys and subscription codes to download and subsequently unlock the tool.

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