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16. Impact of the International Reference Pricing on Pharmaceutical Market Access

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16.1 Definition of International Reference Pricing (IRP)

International reference pricing (IRP) is a process of cost comparison through external reference or cross-reference, which is used by many multinational pharmaceutical companies located in the States of the European Union. The IRP process has been reinforced through the process of mutual recognition of innovative drugs in 1975, the creation of an internal market in the European Union in 1992, and the institution of the European Medical Agency (EMA) in 1995 [1]. Compared to other models, which are based on the evaluation of costs, profits and effectiveness of drugs (value-based pricing), the IRP is a simple process [2].

16.2 Basic Mechanism of the IRP

The IRP aims to limit the expenditure for the reimbursement of drugs, rather than create a process of price regulation. The IRP mechanism is based on the presence of equivalent drugs on the national market to set a reimbursement price, known as the reference price, and the price of the new drug [3]. Reference pricing rules may differ among biologics, vaccines, and pharmaceuticals [1].

16.3 Use of the IRP in Different Countries

In Europe, the IRP is implemented in 29 countries, including 26 of the EU Member States (except the UK and Sweden), Norway, Iceland, and Switzerland. In Europe, every country has a reference "basket", containing the countries used as reference markets for prices [2]. For example, Luxembourg has one country in its basket, while Hungary and Poland have 31 countries in their basket and France and The Netherlands have four (Ita-

ly, Spain, Germany and the UK for France, and Belgium, Germany, France, and the UK for The Netherland). The IRP system was implemented in Canada in the 1990s, following the reforms of the laws relating to patents and pricing [4]. In Canada, the Patented Medicine Price Review Board is responsible for comparing national drug prices for innovative drugs with the external prices of nine other countries [5]. The establishment of the price system led Canada to set prices that are consistently below the consumer price index.

The US does not have a price regulation system in place, and the development, manufacture, and launch of pharmaceuticals are regulated by the Federal Food, Drug, and Cosmetic Act (FFDCA) [6], while the Hatch-Waxman Act promotes the manufacture of generic drugs [7]. In Australia, the Pharmaceutical Benefits Scheme (PBS) has been implemented in order to control drug prices. Australia has a system of reference pricing for generic medicines: the price of a new drug is determined based on the price of other interchangeable drugs [8]. If the selling price is higher than the reference price, the difference must be paid by the patient.

16.4 Impact of the IRP on the Pharmaceutical Industry

Impact on Prices

IRP is the process that most impacts the prices of pharmaceutical drugs, biologics and vaccines [9], and this impact depends on the process and methodology used. It was observed that the reimbursement price set in one country could have both a direct and indirect impact on the reimbursement prices of another country [3]. The direct impact is due to the fact that country A uses the price of country B to set its own prices. The indirect impact is due to the fact that another country (C) is included in the basket of country B; therefore, the prices of country A will be influenced by the prices in country C even if the latter is not in its basket [9].

The revenues of the pharmaceutical companies can be influenced by the markets selected to launch their products. For example, if a company launches its products only in high-income countries, the reference prices would not differ much, thereby providing a good level of revenue [9]. However, the country can lower the cost for a better price limit than the one set by the pharmaceutical company [10]; this can be seen in the case of France, where the country exercises price limits, but also considers the therapeutic effectiveness and the economic contribution. The country does not reimburse beyond a certain limit, and this is a cap for the government expenditure on that drug [6]. This leads the companies to set a moderate price in high-income countries also, and to use that price corridor to get the maximum percentage of revenues.

Impact on Volumes

As discussed above, the IRP led the companies to set a single international price, to commit to create a price corridor and to work towards keeping the price within that bracket, for

maximum revenue and profits. The impact of the IRP on the pharmaceutical market, apart from the price, consists is the fact that, due to the possible lowering of price in certain markets, the manufacturers can decide not to launch their product in that particular markets. Since the IRP might not work well with their pricing strategy in different countries, the company's market access and sales team might renounce the launch of a particular product in a market that would lower its price, leading to a lowering of the overall prices in other countries as well [9]. Here, the IRP process leads to a negative impact, since it provides the companies with the possibility to prevent a potentially new, innovative and possibly more effective treatment from entering a market, thus negatively impacting the patient's conditions [11]. This particular instance is more important for lower income or less populated countries, since manufacturers might give up the launch process in those countries and launch the drug instead in larger countries, up to the patent's expiry or until other regulatory changes might impact the lowering of overall prices [11]. This does not impact only the patients – because the IRP leads to several failed drug launches and to the loss of new and innovative treatments – but also the companies, which cannot launch their products in more countries, and therefore suffer a decrease in their sales volumes [3]. It was reported that the IRP has a positive impact on volumes and does not help control the healthcare budget [12].

Impact on Market Access Sequencing

Market sequencing is carried out by a company – including a pharmaceutical company – in order to increase the chances of greater profit and increased revenue. Market access and launch teams promote the launch of products in such a strategic manner that several avenues are explored to provide the best alternatives for the price restricted market, and still produce a high revenue [4]. One of the Market Access Sequencing strategies most commonly implemented by companies occurs through the launch of products in unregulated markets, and then a launch in countries that have these unregulated markets in their reference basket. For example, many pharmaceutical companies launch their products in the UK and Germany first at high price level, these being unregulated markets, and then look for and launch in countries that have these markets in their reference basket, such as Italy, Spain and France. In this process, the only loss is borne by low-income or low economic power countries, which most of the time may remain out of the loop of the market launches of these pharmaceutical products. This is known as the 'now or never' strategy: the companies launch their products in all the countries they want to 'now', and all the other countries fall within the category where the company 'never' wants to launch the product [13]. On the other hand, some strategies are used to introduce these pharmaceutical products in low-income countries. One strategy the companies implement to introduce their pharmaceutical markets in low-income countries is to launch the drug in a package size that is not present in the high-income countries, thereby eliminating the need to reference the product as with the other countries. Another strategy includes the introduction of discounts through various offers in low-income countries, so that the actual price remains inherently the same, but the price at which the product is available in that country is lower than that applied in high-income countries [1].

16.5 Discussion

The International Reference Pricing (IRP) has been applied by almost all developed nations, except Sweden and the UK. However, in these countries there are other ways of maintaining prices, such as the value-based pricing, implemented by the United Kingdom. Despite the attractiveness of creating similar price processes through a benchmarking procedure carried out in all the countries in which the pharmaceutical products are sold, there are some inherent processes that might be severely and negatively affected. One of these process is the research and development for new and innovative medicines, which is driven by a percentage of the revenues. The IRP does not optimize the price for the well-being of patients, because through IRP there are many treatments that patients might not ever get access to, while it also might not lead to a loss of opportunities through a loss of well-being due to the lack of differential pricing. Thus, the results can be seen in terms of lesser sales revenue from the company perspective, and of loss of treatment opportunities from the patients' perspective. Also, it negatively obstructs the R&D process of new innovative drugs. We can therefore understand the need to create a common ground between reference pricing and differential pricing, where researchers and policy-makers can strategize and devise various schemes that can evenly balance between companies, patients and payers factors such as risk sharing, price and volume, payback, discounts and the burden of further R&D expenses.

16.6 References

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