THE POTENTIAL IMPACT OF PRICE ADJUSTMENTS OF A NEW THERAPY IN GERMANY ON OTHER COUNTRIES: A SIMULATION MODELING EXERCISE

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Abstract

OBJECTIVES: International Reference Pricing (IRP) is a key cost-containment tool for health care payers across the world. IRP may apply either fixed or flexible rules to calculate the price of branded drugs. Typically there is no negotiation between manufacturers and the IRP body. In the context of the German AMNOG price negotiations and the role of Germany as a key referenced country, there is dearth of real-life evidence on the international impact of the AMNOG Act. METHODS: The publicly available IRP rules were screened and evaluated systematically. Based on these findings an IRP model was developed to simulate scenarios of price agreements for a new drug between the German Head Association of the Statutory Health Insurance Companies and the manufacturer. The impact of the price agreement on other countries was analysed based on the existing IRP rules. RESULTS: We simulated a hypothetical price dataset for a branded drug X with all prices set at 100 euro to limit the impact to Germany only. A 25% price drop in Germany would lead to a range of 32.5% reduction in Egypt and almost 1% in Austria. The largest impact in Europe would be in France, Romania, Russia, Slovenia, Luxembourg (-25%), followed by Norway and Greece (-8.33%), the Netherlands (-6.25%), Switzerland, Ireland and Denmark. A price drop of 50% in Germany would double the impact with the exception of Egypt (-55%). However, a limited impact was observed if the price increase in Germany was 25%. That would lead to 6.25% increase in the Netherlands, 2.17% in Switzerland, 2.76% in Ireland and Denmark, and about 1% increase in Austria. In Germany could potentially impact the price of new branded therapies in other countries. This could ultimately lead to a price-downward spiral with a negative impact on innovation and drug development in Europe.

RESULTS: Currently Germany is being referenced by 21 countries worldwide: Austria, Canada, Denmark, Egypt, Finland, France, Greece, Ireland, Israel, Italy, Japan, Luxembourg, the Netherlands, Norway, Romania, Russia, Slovakia, Slovenia, South Korea, Switzerland, and Taiwan. We simulated a hypothetical price dataset for a new branded drug X with all prices set at 100 euro to limit the impact to Germany only. We assumed the drug would be launched in all markets, including those referenced by the 21 countries listed above.

In the first simulation we assessed the impact of a 25% price drop in Germany. The results suggest that such a reduction would lead to a range of 32.5% reduction in Egypt and almost 1% in Austria. The largest impact in Europe would be in France, Romania, Russia, Slovenia, Luxembourg (-25%), followed by Norway and Greece (-8.33%), the Netherlands (-6.25%), Switzerland, Ireland and Denmark. See Graph 3.

CONCLUSIONS: Due to the international reference pricing rules used in 21 countries, mostly in Europe, the AMNOG Act may have a broader impact beyond the pricing of new drugs in Germany only. Depending on the outcome of the early evaluation of the additional benefit, the final price in Germany could potentially impact the price of new branded therapies in many other countries. This could ultimately lead to a price-downward spiral with a negative impact on innovation and drug development in Europe. Further research is needed to understand the actual influence of AMNOG internationally.

REFERENCES:


Graph 1: Countries referencing Germany for prices of branded drugs.

Graph 2: The IRP model used to run the analyses.

DISCLAIMER: B. Stoykova was a freelance consultant at the time of this project and the content of this poster does not in anyway represent the views of her current employer.