Modelling the impact of pricing exceptions and protections on pharmaceutical expenditure in Greece

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Background

The pricing framework in Greece stipulates exceptions to the general pricing rule (average of two different lowest Eurozone prices), which may impact the level of pharmaceutical expenditure.

Objectives

The study models the level of pharmaceutical expenditure, in nominal prices, based on current consumption levels, after ”removing” currently stipulated exceptions and protections in pricing rules.

Methods

- A database was created including all priced pharmaceutical products (8.056 SKUs) based on the Annual Price Revision Bulletin December 2019 (effective in 2020), as published by the competent authorities[1,2].
- We, then, calculated the respective prices removing exceptions/protections, as presented in Box 1.
- Sales data per SKU and distribution channel were acquired by Gilead Sciences[3,4]. Available data accounted for total retail spending and 53% of inpatient spending in 2019. No data were available for sales through EOPYY pharmacies, which accounted for approximately 1/4 of total spending.
- Pharmaceutical expenditure was modelled by distribution channel, namely for products supplied through NHS pharmacies and the National Organization for Health Services Provision (EOPYY) pharmacies based on hospital price minus mandatory discounts and for products supplied by private pharmacies based on retail price.
- Sales and volume mix were assumed to remain constant for 2020, which may underestimate our results, as actual total pharmaceutical expenditure for 2020 is reported to have increased by an additional 200 millions.
- To assess the impact on pharmaceutical expenditure of removing any protections/ exceptions in the pricing rules, we tested three scenarios (Table 1).

Box 1. Exceptions and protections modelled

1. No repricing of pharmaceuticals with a Cost of Daily Treatment (CDT) below 0,20€.

1
Cost of Daily Treatment
2
Price reduction ceiling
3
No price increases

3. Prohibition to increase prices up to the pricing rule

2. Price reduction ceiling of 7% per annual revision until price reaches pricing rule, including generics (priced at 65% of originator)

Results

- In **the as-is situation**, pharma expenditure in our sample totals 3,008,035.55€.
- The **base case scenario** is estimated to result in a **reduction** of **-114,209.82€** in overall pharmaceutical expenditure amongst our sample.
- Scenario **1 is** estimated to result in a **reduction** of **-113,673.61€** in overall pharmaceutical expenditure amongst our sample.
- **Scenario 2,** as expected, leads to an **increase** in total pharmaceutical expenditure in our sample of **+172,032.76€**.

Table 1. Scenario comparison overview

		As-is situation	Base case scenario	Scenario 1	Scenario 2
Protections /exceptions	• Cost of Daily Treatment	x	-	x	-
	• Reduction in price beyond the ceiling of -7%	x	-	-	-
	• Generics priced at 65% of value of originator product	x	-	-	-
	• Price increase prohibition	x	x	x	-

Removing some or all of the currently stipulated exceptions and protections in the pricing rules (except for the price increase prohibition) would result in a reduction in total pharmaceutical expenditure. (Table 2)

Table 2. Scenario Cost comparison

	As-is situation	Base case scenario	Scenario 1	Scenario 2
Pharma expenditure	3,008,035.55€	2,893,825.73€	2,894,361.93€	3,180,068.31€
Difference	-	-114.209.82€	-113.673.61€	+172.032.76€

Conclusions

- **Adopting the hypothetical scenario of removing all protections and exceptions, except for the price increase prohibition, would result in a reduction of 114,209.82€ or 3.7% in pharmaceutical expenditure amongst our sample.**
- **This impact is insufficient to address the underfunding of pharmaceutical expenditure in Greece and, thus, alleviate the resulting burden on patients (copayments) and pharmaceutical companies (compulsory returns).**

Limitations

- This study is the first to model the impact on pharmaceutical expenditure of exceptions/protections in the current pricing framework in Greece.
- Our findings are limited by lack of detailed hospital expenditure data from key hospitals and unavailability of data on EOPYY pharmacies’ sales.
- Nonetheless, our study offers a methodology for further testing the impact on pharmaceutical expenditure of such pricing provisions.

References

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