JPPM
eISSN: 2383-4498
Journal of Pharmacoeconomics & Pharmaceutical Management
Tehran University of Medical Sciences

Affordability After Subsidy Shift from Parallel Exchange Rate to Insurance: a Retrospective Cross Sectional Study

Author(s) Hadi Abbasian[1], Saman Zartab[*2]

1 *Department of Pharmacoeconomics and Pharmaceutical Administration, School of Pharmacy Urmia University of Medical Sciences, Urmia, Iran. ORCID ID: 0000-0003-0294-1544*

2 *Department of Pharmacology, Toxicology and Medical Services, Faculty of pharmacy, Kermanshah University of Medical Sciences, Kermanshah, Iran. ORCID ID: 0000-0002-1472-1672*

** Corresponding Author; Email: samanzartab610@gmail.com*

Citation Abbasian H, Zartab S. Affordability After Subsidy Shift from Parallel Exchange Rate to Insurance: a Retrospective Cross Sectional Study, Journal of Pharmacoeconomics and Pharmaceutical Management. 2023; 9 (3): 45-48

Running Title Affordability of Medicines After Subsidy Shift

Article Type Research Paper

Abstract

Background Due to the imposition of an embargo, Iran adopted a policy of a parallel exchange rate. After three years, the advantages and disadvantages of this policy were revealed empirically. Therefore, the government decided to shift the subsidy to insurance instead of the exchange rate. However, as a result of this plan, the price of medicine rose sharply, and affordability decreased for some sections of society who were not covered by any insurance. This study evaluated the impact of this policy on the affordability of essential medicines listed by the WHO.

Materials and Methods The impact of this plan on the affordability of essential medicines was evaluated using the WHO recommended method. A cross-sectional study was conducted to measure the affordability of the national essential medicines list before and after the implementation of the subsidy shift from exchange rate to insurance.

Results Despite the benefits of this plan, 17 items in the essential medicine list became unaffordable. The affordability of essential medicines decreased, particularly for uninsured individuals.

Conclusion More efforts should be made to cover uninsured people to preserve their access to essential medicines. Although the shift from parallel exchange rate to insurance had several benefits, such as reducing corruption and reverse smuggling, it also decreased the affordability of essential medicines, particularly for uninsured individuals. Therefore, policymakers should consider implementing measures to ensure that essential medicines remain affordable and accessible to all members of society.

Keywords Affordability, Essential Medicine List, Sanction

Received; Accepted 16.07.2023; 02.09.2023

Introduction

In 2018, Iran faced harsh sanctions, and the government adopted a policy of a parallel exchange rate for different commodities to protect its citizens. However, during the three-year implementation of this policy, several disadvantages were revealed. The low exchange rate in the pharmaceutical sector caused reverse drug smuggling, contributing to drug shortages in border areas. The subsidized currency also disrupted the legal export process of medicines, preventing the export of cheaply priced medicines. Furthermore, the cost of drug production increased due to the adoption of a subsidized foreign exchange rate policy in the pharmaceutical sector while other inputs of drug production experienced a price increase. The suppression of drug prices by the government and the inflation of production costs hindered profitable production, leading to loss-making items leaving the market and drug shortages.

As a result, the government decided to allocate resources to insurance companies in the form of Rials, freeing the price of medicines and preventing the imminent bankruptcy of the country's pharmaceutical system. This plan, known as Daruyar, reduced governmental corruption and reverse smuggling. However, it also increased the burden on the healthcare system due to the saturation of the public health sector, as people's interest in medical visits to use their insurance increased. The plan also allowed for re-purchasing prescriptions without the need for revisiting the doctor, a first in Iran.

While the implementation of this plan had several benefits and the government made efforts to increase insurance coverage, it also made drugs more unaffordable for those without insurance coverage. This study investigates the change in the affordability of the country's list of essential medicines after the implementation of the Daruyar plan.

Material and Methods

This study conducted a cross-sectional analysis to measure the affordability of the national list of essential medicines before and after the implementation of the Daruyar Plan in Iran. In Iran, the price of each brand is the same in all types of pharmacies, and a price list is issued to insurance companies and pharmacies by the Food and Drug Organization at different time intervals. The drug price list, which includes the lowest generic drug price, was obtained from the Food and Drug Organization before and after the implementation of the Daruyar Plan to assess changes in drug prices (1).

The national list of essential drugs was obtained from the website of the Food and Drug Organization, and drugs used to treat chronic conditions such as diabetes, heart disease, hypertension, chronic obstructive pulmonary disease (COPD), immunosuppressant, hormonal and central nervous system diseases such as seizures, depression, anxiety, psychosis, and Parkinson's disease were selected for analysis (2).

Affordability was calculated based on the standard methodology introduced by the WHO (3). Affordability was calculated based on the standard methodology introduced by the WHO. A pharmaceutical form of a medicine was considered affordable if the daily wage of an unskilled governmental worker could cover 30 days of consumption for a chronic illness. The standard consumption was based on figures issued by the WHOCC (4). In 2022, the minimum daily wage mandated by the government was 1,893,250 Rials (5) (about 6 USD) (6).

A total of 239 pharmaceutical forms in nine subgroups used for chronic conditions were selected from the national list of essential medicines for analysis.

Results

The most unaffordable group in the national list of essential medicines was the immunosuppressant group, with seven out of eight drugs being unaffordable. Although the implementation of the Daruyar Plan did not increase the number of unaffordable medicines in this group, the affordability of immunosuppressant drugs decreased by an average of 1.84 wage-days after the implementation of the plan.

In the hormone and anti-hormone medicines group, five medicines were unaffordable before implementing the Daruyar Plan. After implementing the plan, three other dosage forms of medicines (Bicalutamide tablet 50 and 150 mg and Flutamide tab 250 mg) became unaffordable, with an average of 0.49 wage-days added to the unaffordability of this family of medicines.

In the central nervous system medicines group (anti-depressant, anti-anxiety, anti-psychotic, anti-epileptic, and anti-Parkinson drugs), nine out of 97 drugs on the national list of essential drugs were unaffordable, which increased to 22 medicines after implementing the Daruyar Plan. The plan also added an average of 0.33 wage-days to the unaffordability of this group.

In the respiratory drugs group, two dosage forms were unaffordable, and the

implementation of the Daruyar Plan did not affect the number of unaffordable dosage forms in this group. On average, the plan increased the unaffordability of these drugs by 0.03 wage-days, indicating the least negative impact of the plan on the respiratory medicines group.

Overall, before implementing the Daruyar Plan, 23 out of 239 medicines on the national list of essential medicines were unaffordable, which increased to 40 items after implementing the plan.

Conclusions

While the implementation of the Daruyar Plan and allocating drug subsidies to insurance organizations had many advantages compared to the parallel exchange rate policy, it reduced the affordability of medicines. As a large number of people are not covered by any insurance, the plan has reduced the access to essential medicines for community members, which deviates from the 2025 objectives of the World Health Organization regarding access to medicines and vaccines.

Ethical Considerations

Not applicable

Conflict of Interest

All authors declare that they have no conflict of interest.

Funding

This research is self-funded.

Acknowledgements

We appreciate the organizations who declared our research data publicly.

Reference

[1] National Formulary Of Iran. [Internet]. [Place unknown]: Iran Food and Drug Administration; [date unknown] [cited 2023 Jul 8]. Available from: https://irc.fda.gov.ir/nfi

[2] Iran Essential Medicine List. [Internet]. [Place unknown]: Iran Food and Drug Administration; [date unknown] [cited 2023 Jul 8]. Available from: https://www.fda.gov.ir

[3] World Health Organization. Measuring medicine prices, availability, affordability and price components. Geneva: World Health Organization; 2008.

[4] World Health Organization. WHO Collaborating Centre for Drug Statistics Methodology: ATC classification index with DDDs and Guidelines for ATC classification and DDD assignment. Oslo, Norway: Norwegian Institute of Public Health; 2006.

[5] Ministry of Cooperatives, Labour and Social Welfare, Iran. [Internet]. [Place unknown]: Ministry of Cooperatives, Labour and Social Welfare, Iran; [date unknown] [cited 2023 Jul 8]. Available from: https://www.mcls.gov.ir/ https://doi.org/10.29252/rph.11.2.69

[6] The Central Bank of Iran (CBI) of Islamic Republic of Iran. [Internet]. [Place unknown]: The Central Bank of Iran; [date unknown] [cited 2023 Jul 8]. Available from: http://www.sanarate.ir/