

Cost comparison between Branded medicines and Jan Aushadhi medicines

P. Yuvanesh¹ Dr. P. Geetha²

¹Department of Pharmacy Practice/School of Pharmaceutical Sciences/ Vels Institute of Science, Technology and Advanced Studies (VISTAS)/Pallavaram, Chennai.

²Department of Pharmacy Practice/School of Pharmaceutical Sciences/ Vels Institute of Science, Technology and Advanced Studies (VISTAS)/Pallavaram, Chennai.
lgeethapharma@gmail.com

ABSTRACT

To review the literature on Cost comparison between Branded medicines and Jan Aushadhi medicines. In India, about half of the total health expenditure is spent on medicines. Conventional prescriptions offer considerable likely expense investment funds to wellbeing frameworks contrasted with their marked counterparts. Nevertheless, it has neglected to acquire notoriety in India because of elements, for example, non-accessibility and doubt on the item quality. We played out an observational review concentrate on 50 marked versus Nonexclusive drug substances for the therapy of Cancer, Hypertension and Diabetes medicines. Information will be dissected with the assistance of the handouts of Pharmaceuticals and Jan Aushadhi value list 2021 for every one of the medications wherein the expense correlation was completed. Finally the study shows that the Generic medicines are cost effective when compared with the branded medicines.

Key Words : Branded drug, Pharmaceuticals, Generic medication, Brochures.

Introduction

Generic drugs refer to those drugs that contain the same amount of the same active ingredients (the ingredients that can cure the disease that the drug treats) as the brand drug. Therefore, generic drugs have the same effect on the human body in curing diseases.¹ Generic medications, on the other hand, are sold under several names and may contain a variety of inactive components (the ingredients that make the product have its taste, shape, texture, smell, etc., but will not affect the human body to reduce health conditions). They are not to be confused with fake pharmaceuticals, which are illegally created duplicates that may or may not contain the same active components as the original. Compared with similar brand products, the use of generic drugs has the potential to significantly reduce out-of-pocket expenses for patients with chronic diseases. In many parts of the world, generic substitution of trademark prescriptions is an accepted practice, and it is usually done for economic reasons.²

All FDA approved generic drugs must be equivalent to the Brand Name drug

Any generic drug based on a single brand drug should have roughly the same properties as the brand name drug in the body. Like one batch of brand-name drugs compared to the next batch of brand-name products, natural changes will always be slight, but they are not important in medicine. The FDA requires drug makers to show that generic drugs may be efficiently replaced for brand-name drugs and provide the same clinical benefit. The generic pharmaceutical must be the same as the brand-name version in the following aspects, according to the abbreviated new drug application (ANDA) submitted by drug companies:

- Same strength, usage indications, form (such as a pill or an injection) and route of administration in the generic medicine as in the medication/innovator drug (such as oral or topical).
- The generic medicine's inactive components can be used.
- Generic drugs are made to the same exacting standards as brand-name drugs.

Lower price doesn't mean inferior:

Generic manufacturers are able to sell their products for lower prices because they are not required to repeat the costly clinical trials of new drugs and generally do not pay for costly advertising, marketing, and promotion. In addition, multiple generic companies apply to FDA to approve a generic for the same brand name drugs. It is common to approve multiple general companies to sell a single product. Market competition generally leads to lower prices.³ A pharmaceutical company's

original product is known as a brand name medicine. When a firm creates a new drug, it must go through and pass a series of tests and evaluations to guarantee that it will cure the ailment it claims to treat while also being safe to use in humans. Pharmaceutical corporations are given the exclusive right to make and market pharmaceuticals for a set length of time since they spend a lot of money developing new drugs. It is protected by a patent. A patent is a technical description of a medicine's usage and application. No one else can make the same drug as the patented drug for a certain amount of time once the patent is issued.; the drug belongs to the original company, so the brand-name drug is the most well-known and trusted drug.⁴

Brand substitution can be accepted as long as the following conditions are met:

1. The individual getting the drug is aware of the substitution and accepts it.
2. The prescription does not say explicitly that the brand name should not be substituted. The generic name is the established generic name of the active drug in the drug.
3. Generic medications are marketed after the patent expiration date of the innovator product.

SIMILARITIES	DIFFERENCES
Active pharmaceutical ingredient	Inactive ingredients (excipients)
Bioavailability and Bioequivalence	Therapeutic efficacy
Efficacy	Approval process
Quality & FDA requirements	Cost

Pradhanmantrabhartiyajanaushadhi scheme

The Department of Pharmaceuticals has taken a step further by creating the pradhanMantrijanaushadhi programme to make inexpensive and high-quality medications a reality in India. Customers and pharmacists both gain from this approach. The pharmaceuticals covered by this system would be generics, which would be available at a lower cost than the market pricing, allowing consumers to afford pricey drugs at a lower cost.

Rising healthcare cost in India has made it difficult for the poor section of the society to avail even basic health services.⁵ Keeping this in mind, janaushadhi scheme was launched to ensure medicines can be availed by anyone and at a very cheaper price.

Jan Aushadhi Scheme for Generic Medicines

To put it another way, generic drugs are non-branded medications that have the same efficacy as their more expensive branded equivalents. Generic medicines are less expensive than brand-name medications and provide the same level of effectiveness. Almost all therapeutic medications are available at every Jan Aushadhi Store. This is, at least, BPPI's sole goal. Jan Aushadhi Scheme has its own website, www.janaushadhi.gov.in, where the list of drugs is available. This website already has a large number of drugs mentioned, and the list is constantly updated and expanded.

Material & Methods

Study Design:

A cross sectional survey was carried out for the cost comparison of Branded medicines and Jan aushadhi medicines used in the treatment of Hypertension, Diabetes, and cancer. For data collection the bill copies of branded medicines and Jan aushadhi medicines was collected from a retail pharmacy named Live Well Pharmacy selling branded medicines and PRADHAN BHARTIYA JAN AUSHADHI PHARMACY selling Jan aushadhi medicines located at Villivakkam respectively for the comparison of the prices.

Study Instrument:

Bill copies was collected from the Live Well and JAN AUSHADHI PHARMACY, brochures of pharmaceuticals and pharmacies & Jan aushadhi price list 2021

Complete study procedure:

It is likely that an observational research was successful. We evaluated the costs of various branded and generic medications. In India, 50 regularly used medications were chosen, which are accessible in both branded and generic forms, in the same concentration, dosage form, and combination, and belong to several groups. Antihypertensives, antidiabetic, and anticancer medicines were among the medications included.⁶ The most expensive and least expensive brands were considered. The Indian Drug Review, the Pharmacy and Medicine Manual, and the Jan Aushadhi 2021 pricing list was used to make the price comparison.

Statistical Analysis

Data analysis of the 50 medicines for which the costs are compared was performed with the help of the "Medicines Manual" and Jan aushadhi 2021 price list.⁷

The cost of each medicine out of 50 branded medicines and Jan aushadhi medicines were taken in the excel format. The comparison between each medicine is evaluated with the help of price data entered in excel format.⁸

Expected Outcome:

The comparison of prices between the 50 branded medicines and the Jan Aushadhi medicines will be evaluated. Generic medicines are cost effective when compared with the branded medicines.

Results

A total of 50 medications were chosen for investigation. Twenty antihypertensive, twenty antidiabetic, and ten anticancer drugs were selected from a total of fifty drugs.

Antihypertensive:

Total selected of 20 medicines, about 16 medicines from Janaushadhi are 0-50% cheaper than the branded medicines.³ medicines from the Janaushadhi are more than 50% cheaper than branded medicines and 1 drug which is 15% costlier than Janaushadhi medicine. The percentage difference between the average cost of brand name drugs and Janaushadhi is 0-68% as shown in the Table no 1 and Figure no 1.

Table 1: Cost comparison of antihypertensive medicines

DRUG NAME	PERCENTAGE	BRANDED MRP	BPPI MRP
Amlodipine+Atenolol	22%	₹ 27.10	₹ 6.00
Amlodipine	38%	₹ 13.27	₹ 5.00
Enoxaparin	53%	₹ 319.27	₹ 170.00
Atorvastatin	21%	₹ 52.29	₹ 11.00
Ramipril	27%	₹ 32.89	₹ 9.00
Simvastatin	28%	₹ 36.00	₹ 10.00
Telmisartan	47%	₹ 21.40	₹ 10.00
Prazosin	19%	₹ 145.00	₹ 28.00
Atorvastatin + Clopidrogel	34%	₹ 102.00	₹ 35.00
Acenocoumarol	10%	₹ 377.30	₹ 36.00
Olmesartan			
Medoxomil+Hydrochlorthiazide	36%	₹ 74.00	₹ 27.00
Atorvastatin	23%	₹ 86.00	₹ 20.00
Labetalol	57%	₹ 103.00	₹ 59.00
Rosuvastatin	19%	₹ 62.50	₹ 12.00
Telmisartan + Amlodipine	38%	₹ 57.31	₹ 22.00
Atorvastatin + Fenofibrate	8%	₹ 320.00	₹ 27.00
Ramipril+Hydrochlorthiazide	26%	₹ 50.00	₹ 13.00
Indapamide	68%	₹ 38.00	₹ 26.00
Labetalol Tab	41%	₹ 100.00	₹ 41.00
Nebivolol	22%	₹ 130.00	₹ 28.00
Streptokinase Inj	120%	₹ 828.00	₹ 995.00

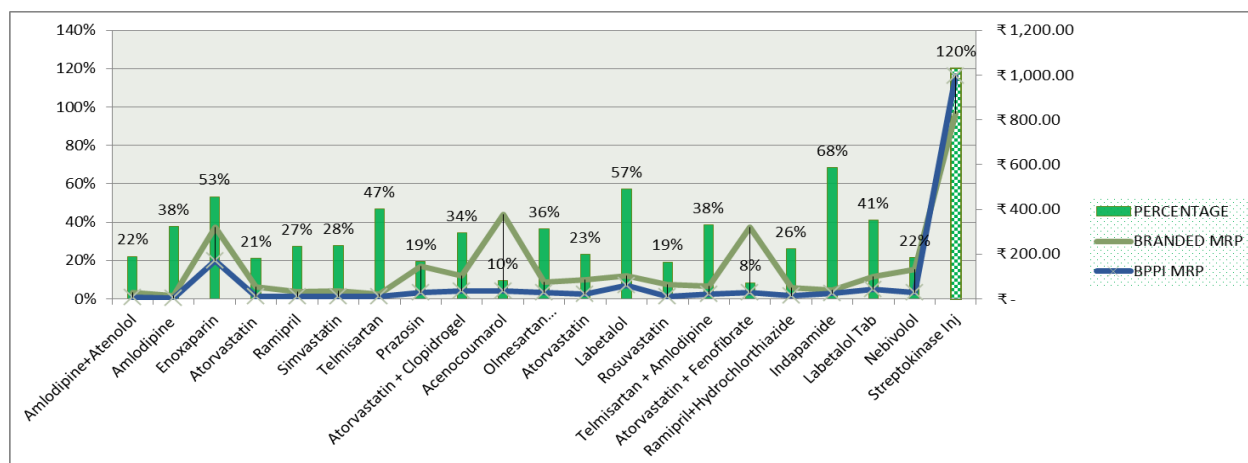


Figure 1: Mean cost differentiation of antihypertensive medicines

Antidiabetic

Total selected of 20 medicines, about 6 medicines from Janaushadhi are 0-50% cheaper than the branded medicines and 14 medicines from the Janaushadhi are more than 50% cheaper than branded medicines. The average cost difference between branded and Janaushadhi drugs ranged from 0% to 90% as shown in the Table no 2 & Figure no 2.

Table 2: Cost comparison of antidiabetic medicines

DRUG NAME	PERCENTAGE	BRANDED MRP	BPPI MRP
Glibenclamide	63%	₹ 8.00	₹ 5.00
Gliclazide	35%	₹ 62.00	₹ 22.00
Glimepiride	31%	₹ 16.00	₹ 5.00
Pioglitazone	16%	₹ 76.00	₹ 12.00
Biphasic Isophane Insulin	57%	₹ 157.00	₹ 90.00
Insulin Glargine	55%	₹ 565.00	₹ 310.00
Glimepiride + Metformin Sr	50%	₹ 48.00	₹ 24.00
Acarbose	90%	₹ 69.00	₹ 62.00
Gliclazide Sr	66%	₹ 61.00	₹ 40.00
Voglibose + Metformin	30%	₹ 47.00	₹ 14.00
Insulin Injection (Human Recombinant)	45%	₹ 157.00	₹ 71.00
Teneligptin	72%	₹ 69.00	₹ 50.00
Metformin SR + Glimepiride Tablet	51%	₹ 65.00	₹ 33.00
Metformin SR Tablets	64%	₹ 28.00	₹ 18.00
Glibenclamide + Metformin Hcl	69%	₹ 16.00	₹ 11.00
Voglibose Tablets	55%	₹ 20.00	₹ 11.00
Glipizide + Metformin Hydrochloride	67%	₹ 12.00	₹ 8.00
Metformin Hydrochloride Tablets Prolong Release	75%	₹ 8.00	₹ 6.00
Gliclazide + Metformin Hydrochloride	23%	₹ 153.00	₹ 35.00
Metformin (SR) + Pioglitazone	89%	₹ 28.00	₹ 25.00

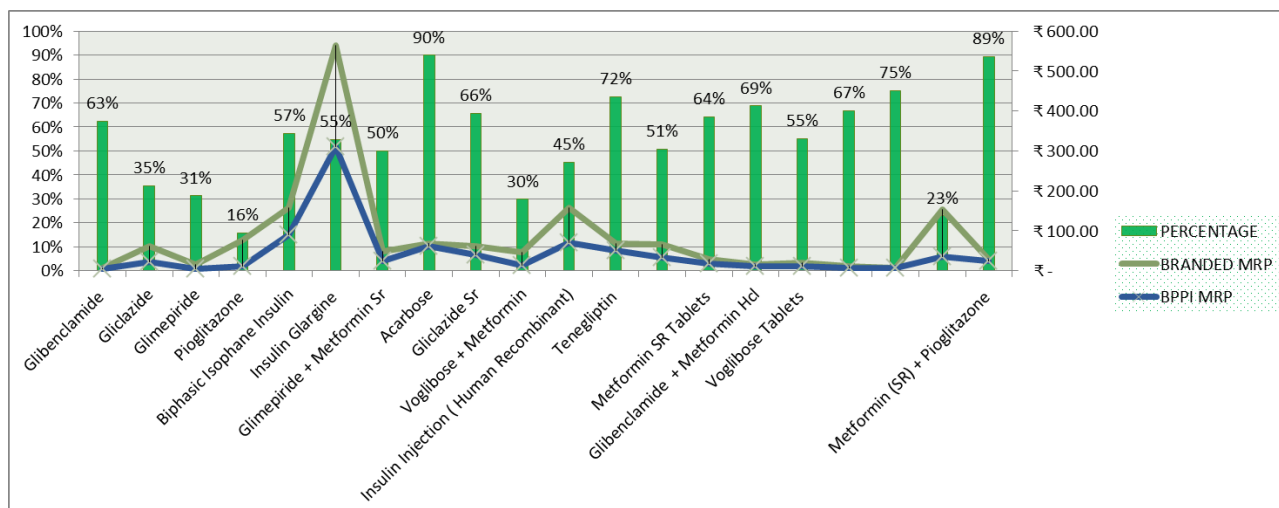


Figure 2: Mean cost differentiation of antidiabetic medicines

Anticancer Drugs:

Total selected of 10 medicines, about 8 medicines from Janaushadhi are 0-50% cheaper than the branded medicines and 2 medicines from the Janaushadhi are more than 50% cheaper than branded medicines. The pricing difference between branded and Janaushadhi drugs ranged from 0% to 79 percent as shown in the Table no 3 & Figure 3.

Table 3: Cost comparison of anticancer medicines

DRUG NAME	PERCENTAGE	BRANDED MRP	JAS MRP
Doxorubicin	34%	₹ 874.39	₹ 300.00
Gemcitabine	14%	₹ 5,999.00	₹ 836.00
Bicalutamide	39%	₹ 347.00	₹ 137.00
Bortezomib Inj	77%	₹ 4,140.00	₹ 3,188.00
Imatinib Mesylate	23%	₹ 1,527.00	₹ 350.00
Oxaliplatin 50Mg	20%	₹ 2,400.00	₹ 475.00
Paclitaxel	15%	₹ 3,600.00	₹ 540.00
Letrozole	20%	₹ 169.00	₹ 34.00
Anastrozole	32%	₹ 242.00	₹ 78.00
Capecitabine	59%	₹ 717.00	₹ 420.00

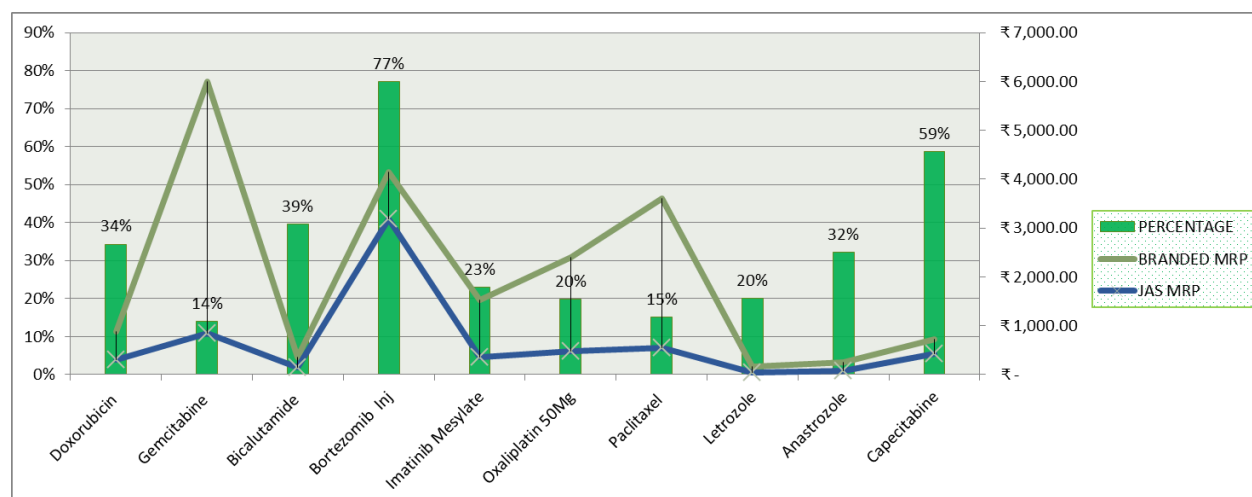


Figure 3: Mean cost differentiation of anticancer medicines

Discussion

Medicines have a critical role in the protection, maintenance, and restoration of people's health. Global and national agencies undertaking health activities and programmes are concerned about the availability of suitable medicines in sufficient quantities, of good quality, and at reasonable rates.⁸ Generic drugs lowered the region's drug bill by 61 percent in most countries. Even in poorer nations, moving private sector purchases from branded to generic pharmaceuticals could result in cost savings.⁹ In this direction, the Janaushadhi is a policy effort. This initiative was given a boost in India's recent union budget in 2016. However, as the report indicates, some generic drugs offered under Janaushadhi are more expensive than comparable branded drugs on the market.¹⁰ Furthermore, they are commonly administered drugs in the general population for common health problems. This shows that the current JAS price would actually raise patient households' out-of-pocket spending, defeating the scheme's purpose and goal.¹¹ It raises serious issues about medicine price in JAS and the achievement target from a policy standpoint.¹² JAS is a key project of the Indian government that addresses a wide range of medical illnesses that are prevalent in the community from the perspective of the general people. , so far the practice of prescribing is unregulated. Pharmaceutical corporations' unethical advertising techniques make necessary medicines unaffordable to the average person.¹³ Patients also have little or no knowledge of the pricing differences between branded and generic medicines, and often leave drug selection to their doctors.¹⁴ As a result, even if doctors are required to prescribe only generic drugs from the JAS, it is possible that this may not be the lowest option available, resulting in a significant OOP spending on medicines by households. There have been no independent studies comparing the price differential between the JAS pricing and the market price of medications.¹⁵ The sole study conducted on the JAS looked into generic drug quality and found that the pharmaceuticals tested after being obtained through Janaushadhi sources are of equivalent and comparable quality to their branded counterparts on the market.¹⁶

Conflict of interest: Nil

Conclusion

The investigation shows that while the JAS cost is among the least on the lookout for Cancer, Hypertension and Diabetes drugs. From the arrangement viewpoint, it brings up major issues with respect to the estimating of meds in JAS and the objective to be accomplished. With the existing JAS, OOP consumption due to pharmaceuticals is unlikely to reduce in India because to data variation and provider-initiated request highlights in the medical care market. As a result, it is strongly recommended that the Government of India conducts an assessment of the JAS's drug

valuation policy. Moreover, solid stock side guideline, for example, solution reviews are important to forestall the far and wide remedy of expensive marked prescriptions. On the off chance that this isn't done, the JAS strategy won't meet its target of giving minimal expense reasonable medication and monetary danger assurance to families from the expense of drugs.

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