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COMPARISON OF COST ANALYSIS GENERIC VS BRANDED DRUGS OF ANTI EPILEPTIC DRUGS IN A COMMUNITY CARE SETTING

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ABSTRACT

Aim: This study aims to evaluate the inter-brand price variations among oral anti-epileptic drugs marketed in India and perform a comparative cost analysis benchmarking median branded price against the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP / JAS) generic alternatives. **Methodology:** A retrospective, cross-sectional pharmacoeconomic analysis was conducted targeting 17 commonly prescribed anti-epileptic agents across multiple strengths and dosage forms (tablets and capsules). Maximum retail prices (MRP) of branded formulations were gathered using standard pharmaceutical indices like the Current Index of Medical Specialties (CIMS) and Drug Today. Generic prices were compiled from the official Jan Aushadhi Scheme (JAS) price registry. Pharmacoeconomic metrics including the Price Ratio and Percentage Cost Variation were mathematically computed for each drug molecule. **Results:** Extreme disparities were observed in inter-brand pricing. The highest inter-brand percentage cost variation among branded agents was documented for Diazepam 10mg tablets (526.06%), followed by Lorazepam 2mg tablets (263.96%), Clonazepam 2mg tablets (255.90%), and Gabapentin 300mg capsules (253.8%). Conversely, the lowest inter-brand variation was seen in Lamotrigine 25mg tablets (2.56%). In the generic benchmarking analysis, branded formulations were significantly costlier than Jan Aushadhi alternatives, with the highest generic-tobrand price variation captured in Gabapentin 100mg tablets (484.41%), followed closely by Lamotrigine 25mg dispersible tablets (400%)

and Lorazepam 1mg tablets (323.07%). **Conclusion:** The Indian pharmaceutical market exhibits a profound, highly volatile cost disparity among anti-epileptic medications. Transitioning from high-cost branded formulations to Jan Aushadhi generic options can remarkably lower the out-of-pocket healthcare expenditure, minimize treatment defaults and improve therapeutic adherence in epileptic individuals.

KEYWORDS: Pharmacoeconomics, Cost Variation Analysis, Anti-Epileptic Drugs, Jan Aushadhi, Branded vs Generic, Healthcare Affordability**.**

INTRODUCTION

A seizure represents a critical clinical manifestation arising from a transient episode of abnormal, excessive, or highly synchronous neuronal activity within the central nervous system. Epilepsy is a diverse brain disorder characterized by an enduring, chronic predisposition to generate these spontaneous epileptic seizures. It carries multi-faceted neurobiological, cognitive, psychological, and social ramifications. Clinically, an epilepsy diagnosis strictly requires at least two unprovoked seizures occurring separated by a timeline greater than 24 hours.

Globally, the neurological burden of epilepsy is massive. Epidemiological indices illustrate that the incidence curve of epilepsy is typically U-shaped in developed economies—peaking in early neonates and dropping before surging significantly among elderly populations over 75 years of age. However, in developing nations like India, the epidemiological layout shows a continuous peak during young, early adulthood. While developed nations report a prevalence rate between 4 to 10 cases per 1,000 individuals, tropical and developing geographical areas display alarming rates ranging from 14 up to 57 cases per 1,000 persons. This higher risk profile is deeply influenced by localized infectious vulnerabilities such as neurocysticercosis, coupled with gaps in perinatal healthcare delivery.

The primary line of defense in managing epilepsy involves long-term oral Antiepileptic Drugs (AEDs). Despite the widespread availability of a wide therapeutic spectrum—including classical barbiturates, hydantoins, and newer generational cyclic GABA analogues—nearly one-third of the patient population eventually progresses into medically refractory or intractable epilepsy. This condition is marked by failure to achieve seizure freedom despite two optimized, well-tolerated drug schedules. This dynamic makes continuous adherence to medication vital.

Unfortunately, successful therapeutic outcomes are highly sensitive to drug pricing. In the open Indian market, multiple pharmaceutical entities manufacture identical therapeutic molecules under distinct brand names at vastly different price points. The Government of India uses the Drug Price Control Order (DPCO) and the National Pharmaceutical Pricing Authority (NPPA) to enforce ceiling prices on critical agents. Yet, a substantial fraction of specialized neuro-psychiatric formulations falls outside these regulatory price nets. To solve this public health challenge, the government launched the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) to dispense high-quality unbranded generic drugs at a fraction of branded costs.

METHODOLOGY

Study Design

This is a cross-sectional observational study conducted to evaluate the cost of brand and generic drug of antiepileptic drugs among various Indian pharmaceutical market; it is also used to evaluate the cost variation of antiepileptic drugs.

Study Plan

The total of 18 prescribed antiepileptic drugs were selected based on the frequently used in practice various dosage form and strength were included in this study. The maximum retail prices (MRPs) of antiepileptic drugs manufactured by different pharmaceutical companies in India, in the same strength were obtained from National Pharmaceutical Pricing Authority (NPPA) database for price control references. The generic drug of antiepileptic drugs price was collected from Pradhan Mantri Bhartiya Jan Aushadhi Scheme.

Data Collection and Analysis

The Cost of each drug were collected by calculating the price of each tablet or capsule. The data were collected based on their strength and dosage form and availability of number of brands. The minimum and maximum prices were taken per tablet / capsules. Th median price and standard deviation were determined.

The cost ratio and cost variation percentage was calculated by using formula.

Cost ratio was calculated as

$$COST\ RATIO = \frac{MAXIMUM\ PRICE}{MINIMUM\ PRICE}$$

Cost Variation (%) formula

$$\text{COST VARIATION} = \frac{MAXIMUM\ PRICE - MINIMUM\ PRICE}{MINIMUM\ PRICE} \times 100$$

RESULTS

In this study cost analysis is determined by comparing the cost among different brand of antiepileptic drugs and cost of generic drugs of antiepileptic drugs by calculating the cost variation among different brand and class of drugs. Even mean, median and standard deviation is determined to compare the cost among different brand and different dose of the drug. The cost variation and cost ratio of the drugs are calculated by the formula mentioned above in methodology. Some of the significant difference is shown among difference brand and dose which is seen in the table 1.

Table No. 1: Cost Variation Analysis of Anti – Epileptic drugs of Brand Drug.

Drug name	DDD	Dosage form	Avg Price per tablet	Number of Brands	Price of Ratio	Cost variation
Lamotrigine	25mg	Tablet	7.9	3	1.02	2.56%
	50mg	Tablet	9.8	3	1.91	91.04%
	100mg	Tablet	19.3	3	1.15	15.55%
Gabapentin	100mg	Tablet	8.8	4	1.63	63.23%
	300mg	Tablet	14.6	4	1.88	88.2%
	100mg	Capsule	7.7	3	1.41	41.9%
	300mg	Capsule	16.5	5	3.53	253.8%
	250mg	Tablet	5.9	2	1.13	13.1%
Levetiracetam	500mg	Tablet	12.1	2	1.13	13.8%
	750mg	Tablet	18.1	2	1.13	13.8%
Phenytoin	50mg	Tablet	0.76	3	1.06	6.75%
	100mg	Tablet	1.56	3	1.26	26.8%
Zonisamide	25mg	Capsule	4.7	3	1.20	20.9%
	50mg	Capsule	9.4	3	1.12	12.75%
	100mg	Tablet	1	2	1.08	8.33%
	200mg	Tablet	1.5	3	1.41	41.66%
Carbamazepine	300mg	CR Tablet	2.8	2	1.11	11.53%
	400mg	CR Tablet	3.6	2	1.08	8.57%
Sodium Valproate	200mg	Tablet	3.32	3	1.18	18.89%
	300mg	Tablet	3.87	2	1.41	41.87%
	500mg	Tablet	7.57	4	1.15	15.04%

Topiramate	50mg	Tablet	21.72	3	1.57	57.04%
	100mg	Tablet	30.9	3	1.05	5.70%
Phenobarbitone	30mg	Tablet	1.18	4	1.59	59.13%
	60mg	Tablet	1.98	4	1.49	49.70%
Param panel	2mg	Tablet	14.5	2	1.88	88.11%
	4mg	Tablet	15.38	3	1.05	5.29%
Eslicarbazepine acetate	200mg	Tablet	8.03	2	1.19	19.17%
	400mg	Tablet	26.85	2	1.13	13.09%
	800mg	Tablet	40.26	2	1.02	2.10%
	75mg	Capsule	22.03	3	1.33	33.53%
Pregabalin	150mg	Capsule	30.93	3	1.54	54.54%
	300mg	Capsule	25.26	3	1.55	55.66%
Piracetam	400mg	Tablet	9.68	3	1.45	45.56%
	800mg	Tablet	9.25	3	1.68	68.85%
	1200mg	Tablet	27.26	3	2.0	100.78%
Lacosamide	50mg	Tablet	9.49	3	1.32	32.92%
	100mg	Tablet	21.89	2	1.09	9.92%
Clobazam	5mg	Tablet	6.81	3	1.47	47.51%
	10mg	Tablet	10.14	3	1.03	3.19%
Diazepam	5mg	Tablet	1.50	3	1.31	31.06%
	10mg	Tablet	4.98	4	6.26	526.06%
Lorazepam	1mg	Tablet	2.44	5	1.48	48.84%
	2mg	Tablet	3.80	6	3.63	263.96%
	0.25mg	Tablet	1.91	3	1.09	9.72%
Clonazepam	0.5mg	Tablet	3.57	2	1.06	6.35%
	2mg	Tablet	11.25	3	3.55	255.90%
Oxcarbazepine	150mg	Tablet	10.44	4	2.09	109.10%
	300mg	Tablet	16.31	4	2.24	124.85%
	450mg	Tablet	28.59	3	1.54	54.51%
	600mg	Tablet	35.41	3	1.75	75.70%

Table No. 1 The price variation study of different branded antiepileptic drugs shows significant differences between different strengths. The Lamotrigine 50mg tablet shows the highest cost variation of (91.04%) which is followed by lamotrigine 25mg tablet which found the lowest price variation of (2.56%). In Gabapentin 300mg capsules shows the highest cost variation (253.8%), whereas 100mg capsules observed the lowest cost variation (41.9%). For Levetiracetam 750mg tablets shows the highest price variation (13.8%) while 250mg tablets observed the lowest cost variation (13.1%).

The analysis of Phenytoin 100mg tablets shows the highest cost variation (26.8%), whereas 50mg tablets found the lowest cost variation (6.75%). In Zonisamide 25mg capsules shows the highest cost variation (20.9%), while 50mg capsules observed the lowest cost variation (12.75%). For Carbamazepine, 200mg tablets shows the highest cost variation (41.66%), while

100mg tablets found the lowest cost variation (8.33%). The Sodium valproate 300mg tablet shows highest cost variation (41.87%), whereas 500mg tablets observed lowest cost variation (15.04%).

In Topiramate 500mg tablets shows the highest cost variation (57.04%), while 100mg tablets found the lowest cost variation (5.70%). For phenobarbital 30mg tablets shows the highest cost variation (59.13%), whereas 60mg tablets observed the lowest cost variation (49.70%). The study of Perampanel 2mg tablets shows the highest cost variation (88.11%), while 4mg tablets found the lowest cost variation (5.29%). In Eslicarbazepine acetate, 200mg tablets shows the highest cost variation (19.17%), whereas 800mg tablets found the lowest cost variation (2.10%).

The Pregabalin 300mg capsules shows the highest cost variation (55.66%) whereas pregabalin 75mg capsule observed the lowest cost variation (33.53%). For Piracetam 1200mg tablets shows the highest cost variation (100.78%) while 400mg tablets found the lowest cost variation (45.56%). In Lacosamide 50mg tablet shows the highest cost variation (32.92%), whereas Lacosamide 100mg tablet indicates the lowest cost variation (9.92%). The Clobazam 5mg tablet shows the highest cost variation (47.51%), while clobazam 10mg tablet observed the lowest cost variation (3.19%). In Diazepam 10mg tablet shows the highest cost variation (526.06%), whereas Diazepam 5mg tablet found the lowest cost variation (31.06%). The Lorazepam 2mg tablet has the highest cost variation (263.96%), while Lorazepam 1mg tablet found the lowest cost variation (48.84%). In Clonazepam 2mg tablet shows the highest cost variation (255.90%) whereas Clonazepam 0.5mg observed the lowest cost variation (6.35%).
In Present study detailed cost variation analysis shows a wide range of price discrepancies across different brands of the same AEDs. From above studies the highest cost variation was seen in diazepam 10mg tablets with a staggering (526.06%) variation followed by lorazepam 2mg tablets (263.96%) and clonazepam 2mg tablets (255.90%).

Diazepam 10mg tablets shows highest cost ratio and percentage cost variation as 6.26 and 526.06%. Eslicarbamazepine acetate (800mg) shows lowest cost ratio and percentage cost variation 1.02 and 2.10%.

Table No. 2: Mean, Median and Standard deviation of Anti- Epileptic Drugs.

Drug name	DDD	Dosage form	Max. Price	Min. Price	Mean Price	Medium Price	SD
	25mg	Tablet	8	7.8	7.9	7.9	0.08
Lamotrigine	50mg	Tablet	12.8	6.7	9.8	9.9	2.49
	100mg	Tablet	20.8	18	19.3	19.3	1.14
	100mg	Tablet	11.1	6.8	8.8	8.7	1.58
Gabapentin	300mg	Tablet	17.6	9.35	14.6	15.9	3.29
	100mg	Capsule	8.8	6.2	7.7	8.3	1.13
	300mg	Capsule	23	6.5	16.5	20.4	6.29
	250mg	Tablet	6.30	5.57	5.9	5.94	0.37
Levetiracetam	500mg	Tablet	12.98	11.40	12.1	12.19	0.79
	750mg	Tablet	19.34	16.98	18.1	18.16	1.18
Phenytoin	50mg	Tablet	0.79	0.74	0.76	0.75	0.02
	100mg	Tablet	1.7	1.34	1.56	1.65	0.16
Zonisamide	25mg	Capsule	5.2	4.3	4.7	4.6	0.37
	50mg	Capsule	9.99	8.86	9.4	9.43	0.57
Carbamazepine	100mg	Tablet	1.04	0.96	1	1.004	0.044
	200mg	Tablet	1.7	1.28	1.5	1.6	0.18
	300mg	CR Tablet	2.92	2.69	2.8	2.805	0.11
	400mg	CR Tablet	3.82	3.52	3.6	3.67	0.15
Sodium Valproate	200mg	Tablet	3.65	3.07	3.32	3.26	0.24
	300mg	Tablet	4.54	3.20	3.87	3.87	0.67
	500mg	Tablet	8.26	7.18	7.57	7.435	0.44
Topiramate	50mg	Tablet	27.53	17.53	21.72	20.1	4.24
	100mg	Tablet	31.54	29.8	30.9	31.4	0.79
Phenobarbitone	30mg	Tablet	1.48	0.93	1.18	1.16	0.23
	60mg	Tablet	2.53	1.69	1.98	1.86	0.32
Param panel	2mg	Tablet	19	10.10	14.5	14.55	4.45
	4mg	Tablet	15.38	15.2	15.38	15.2	0.35
Eslicarbazepine acetate	200mg	Tablet	8.7	7.36	8.03	8.03	0.67
	400mg	Tablet	28.5	25.2	26.85	26.85	1.65
	800mg	Tablet	40.68	39.84	40.26	40.26	0.42
Pregabalin	75mg	Capsule	24.61	18.43	22.03	23.07	2.63
	150mg	Capsule	37.40	24.2	30.93	31.2	5.39
Piracetam	300mg	Capsule	29.7	19.08	25.26	27.0	4.51
	400mg	Tablet	11.51	7.9	9.68	9.65	1.47
	800mg	Tablet	12.09	7.16	9.25	8.5	2.08
	1200mg	Tablet	38.15	19	27.26	24.64	8.03
Lacosamide	50mg	Tablet	10.99	8.2	9.49	9.28	1.15
	100mg	Tablet	22.93	20.86	21.89	21.895	1.03
Clobazam	5mg	Tablet	8.60	5.83	6.81	6.01	1.26
	10mg	Tablet	10.33	10.01	10.14	10.08	0.14
Diazepam	5mg	Tablet	1.73	1.32	1.50	1.47	0.17
	10mg	Tablet	11.77	1.88	4.98	3.14	3.96
Lorazepam	1mg	Tablet	3.23	2	2.44	2.41	0.42
	2mg	Tablet	8.99	2.47	3.80	2.94	2.36
	0.25mg	Tablet	2.03	1.85	1.91	1.86	0.083
Clonazepam	0.5mg	Tablet	3.68	3.46	3.57	3.57	0.11

	2mg	Tablet	18.08	5.08	11.25	10.6	5.33
	150mg	Tablet	14.01	6.7	10.44	10.54	2.83
Oxcarbazepine	300mg	Tablet	23.16	10.3	16.31	15.185	4.63
	450mg	Tablet	34.04	22.03	28.59	29.17	4.97
	600mg	Tablet	45.12	25.68	35.41	35.44	7.94

Table No. 2 shows difference between the cost of different brand by mean of Mean price, Median price and Standard deviation.

Conversely, drugs with the lowest SD, such as Phenytoin 50 mg tablet (SD 0.02) and Carbamazepine 100 mg tablet (SD 0.044), shows minimal variation in prices across the market. Among the anti-epileptic drugs analyzed, the lowest SD values, indicating the most stable prices across different sellers, were observed for Phenytoin 50 mg tablet with an (SD 0.02), followed by Carbamazepine 100 mg tablet at (SD 0.044), Lamotrigine 25 mg tablet at (SD 0.08), Clonazepam 0.25 mg tablet at (SD 0.083), Carbamazepine 300 mg CR tablet at 0.11, Clonazepam 0.5 mg tablet at 0.11, Carbamazepine 400 mg CR tablet at 0.15, Phenytoin 100 mg tablet at 0.16, Carbamazepine, 200 mg tablet at 0.18, and Phenobarbitone 30 mg tablet at 0.23.

In this study the anti-epileptic drugs were analyzed where, Eslicarbazepine acetate 800 mg tablet shows the highest median price of 40.26, followed by Oxcarbazepine 600 mg tablet with a median price of 35.44, Oxcarbazepine 450 mg tablet at median price 29.17, and Pregabalin 150 mg capsule with a median price of 31.2. Other high-median formulations included Topiramate 100 mg tablet median price 31.4, Eslicarbazepine acetate 400 mg tablet median price 26.85, and Pregabalin 300 mg capsule median price of 27.0. Among the anti-epileptic drugs studied, the lowest median prices were observed for Phenytoin 50 mg tablet with a median price of 0.75, followed by Carbamazepine 100 mg tablet at median price of 1.004, Phenobarbitone 30 mg tablet at median price1.16, and Diazepam 5 mg tablet at median price 1.47. Other low-median formulations included Clonazepam 0.25 mg tablet at median price of 1.86, Carbamazepine, 200 mg tablet at median price of 1.6, Diazepam 10 mg tablet at median price of 3.14, Lorazepam 1 mg tablet at median price of 2.41, and Clonazepam 0.5 mg tablet at median price of 3.57. Additionally, Sodium Valproate, 200 mg tablet shows median price of 3.26, Phenobarbitone 60 mg tablet at median price of 1.86, and Lorazepam 2 mg tablet at median price of 2.94.

Table No. 3 Cost variation between median brand price and Jan Aushadhi Scheme (JAS)

generic price.

Drug name	DDD	Dosage forms	Median Price	JAS Generic price	JAS Price variation
Acetazolamide	250mg	Tablet	1.775	1.77	5.88%
carbamazepine	100mg	Tablet	0.565	0.56	142.42%
	200mg	Tablet	1.03	1.03	57.5%
Clobazam	5mg	Tablet	1.415	1.41	12.78%
	10mg	Tablet	4	4.38	228.63%
Clonazepam	0.25mg	Tablet	1.23	1.18	30%
	0.5mg	Tablet	0.47	0.47	41.02%
	1mg	Tablet	0.66	0.66	100%
Diazepam	2mg	Tablet	1.2	1.13	114.28%
	5mg	Tablet	0.53	0.53	30.43%
	10mg	Tablet	1.3	1.43	100%
Gabapentin	100mg	Tablet	6.4	5.58	484.41%
	100mg	Capsule	3.18	2.64	107.79%
	300mg	Capsule	2.525	2.52	19.56%
Lamotrigine	25mg	Dispersible tablet	4.5	4.5	400%
	50mg	Dispersible tablet	2.5	2.5	50%
Lacosamide	100mg	Tablet	3.21	3.21	117.82%
	100mg	Tablet	5.4	5.4	7.69%
	150mg	Tablet	19	19	37.5%
Levetiracetam	250mg	Tablet	5.06	4.69	101%
	500mg	Tablet	5.81	5.81	42.08%
	750mg	Tablet	9.4	11.4	77.77%
	1000mg	Tablet	12	15.83	138.09%
Lorazepam	1mg	Tablet	0.67	0.67	323.07%
	2mg	Tablet	0.91	0.91	90.47%
	150mg	Tablet	4.34	4.34	48%
Oxcarbazepine	300mg	Tablet	3.665	3.66	20.12%
	600mg	Tablet	13	13.06	33.92%
Phenobarbitone	30mg	Tablet	0.45	0.45	60%
	60mg	Tablet	0.88	0.87	18.75%
Phenytoin	100mg	Tablet	0.5	0.5	22.22%
Piracetam	400mg	Tablet	2.03	2.03	17.64%
	800mg	Tablet	7.8	7.8	252.94%
	1200mg	Tablet	11	11	44.44%
Pregabalin	75mg	capsule	2.14	1.91	56.02%
Sodium valproate	200mg	Tablet	1.55	1.55	6.66%
	300mg	Tablet	2.02	2.02	19.56%
Topiramate	50mg	Tablet	9	8.66	83.33%
	100mg	Tablet	10	11	87.5%

Table No. 3 shows that a total of 17 antiepileptic drugs with different strengths and dosage

forms were analyzed for price variation between the median market price and Jan Aushadhi (JAS) generic price. The price variation ranged from 5.88% to 484.41% among the studied drugs. The highest price variation was observed with Gabapentin 100 mg tablet (484.41%), followed by Lamotrigine 25 mg dispersible tablet (400%) and Lorazepam 1 mg tablet (323.07%). Other drugs showing high price variation (>100%) included Clobazam 10 mg (228.63%), Carbamazepine 100 mg (142.42%), Levetiracetam 1000 mg (138.09%), Lamotrigine 100 mg (117.82%), and Diazepam 2 mg (114.28%). Moderate price variation (50–100%) was observed in drugs such as Carbamazepine, 200 mg (57.5%), Pregabalin 75 mg capsule (56.02%), Topiramate 50 mg (83.33%), and Lorazepam 2 mg (90.47%). Lower price variation (<20%) was noted for Acetazolamide 250 mg (5.88%), Sodium valproate, 200 mg (6.66%), Lacosamide 100 mg (7.69%), Piracetam 400 mg (17.64%), and Phenobarbitone 60 mg (18.75%). Overall, the results indicate considerable price variation among antiepileptic drugs, suggesting that Jan Aushadhi generics may help reduce treatment costs for patients**.**

Among the analyzed drugs, Gabapentin 100 mg tablet shows the highest price variation of 484.41%, whereas Gabapentin 300 mg capsule found the lowest price variation of, 19.56% among its strengths. Lamotrigine shows the highest price variation of 400% for 25 mg dispersible tablets, while the lowest variation is observed for 50 mg dispersible tablets (50%). In Lorazepam, the highest price variation is seen with 1 mg tablets (323.07%), whereas the lowest is observed with 2 mg tablets (90.47%). Clobazam shows the highest variation in 10 mg tablets (228.63%), while the lowest cost variation is observed in 5 mg tablets (12.78%).

Piracetam exhibits the highest price variation with 800 mg tablets (252.94%), whereas the lowest variation is seen with 400 mg tablets (17.64%).For Carbamazepine, the 100 mg tablet shows highest price variation (142.42%) compared to the, 200 mg tablet (57.5%).

In Diazepam, the 2 mg tablet shows the highest price variation (114.28%), while the lowest is observed in the 5 mg tablet (30.43%). Levetiracetam shows the highest price variation for 1000 mg tablets (138.09%), whereas the lowest variation is seen with 500 mg tablets (42.08%). Phenobarbitone shows the highest price variation in 30 mg tablets (60%), while the lowest variation is observed in 60 mg tablets (18.75%).Oxcarbazepine shows the highest variation in 150 mg tablets (48%), whereas the lowest variation is seen in 300 mg tablets (20.12%).Topiramate shows slightly higher variation for 100 mg tablets (87.5%) compared to 50 mg tablets (83.33%).Sodium valproate shows the highest variation in 300 mg tablets (19.56%), while the lowest variation is observed in, 200 mg tablets (6.66%).Overall,

Gabapentin 100 mg tablet shows the highest price variation (484.41%), while Acetazolamide 250 mg tablet shows the lowest price variation (5.88%) among the analyzed drugs.

DISCUSSION

The primary finding of this investigation confirms a profound economic discrepancy in how anti-epileptic drugs are priced by various corporate entities in India. A patient requiring long-term maintenance therapy on a drug like Diazepam 10mg could potentially end up spending over 500% more depending purely on the corporate brand printed on their prescription slip.

When looking into safety-net alternatives, the data demonstrates that government procured **Jan Aushadhi Scheme (JAS)** generics offer massive cost-containment opportunities. Branded AEDs are shown to be **0.7 to 8 times more expensive** than JAS alternatives. Despite these clear financial benefits, public and clinical adoption of generic medications across India remains significantly constrained. This slow adoption is largely attributed to poor geographic distribution and lack of awareness regarding Jan Aushadhi outlets, coupled with an ungrounded but persistent skepticism over the bioequivalence, purity, and clinical efficacy of cheap generic alternatives. Evidence from advanced institutional care indicates that integrating real-time price comparative alerts directly into electronic health record (EHR) prescribing software can profoundly pivot clinician choices toward cost-effective therapeutics. Such structural interventions have been proven to reduce final patient out-of-pocket medication bills by roughly **30%**, effectively curbing medication non-adherence driven by financial toxicity.

CONCLUSION

In our study we conclude that, antiepileptic drugs are available under numerous brands, resulting in considerable variation in their prices. Because epilepsy requires long-term therapy, such price differences may negatively affect patient adherence and may lead to partial compliance or discontinuation of treatment. It is therefore important for regulatory authorities to take appropriate measures to regulate and minimize price variations among branded medications. Physicians should also remain aware of the differences in drug prices while prescribing antiepileptic drugs. Furthermore, educating patients about the availability of both branded and generic medicines is essential.

REFERENCES

1. Nagaraja PS, Vedavathi H. Cost analysis study of price variation among the various brands of antiepileptics available in India. Int J Basic Clin Pharmacal, 2017; 6: 422-6.
2. Arya P, Kumar R, Chandra A, Mohan L. Study of price variations of anti-epileptic drugs available in different brands in Indian pharmaceutical market. Int J Res Med Sci, 2018; 6: 4102-5.
3. Hauser WA, Kurland LT. The epidemiology of epilepsy in Rochester, Minnesota. Epilepsia., 1975; 16: 1-66.
4. Kandra N, Rajesh B. Cost variation analysis of different brands of oral anti-epileptic drugs available in India. Int J Basic Clin Pharmacal, 2021; 10: 948-53.
5. Phatak MA, Motwani HJ, Deshmukh RK, Panchal SS, Naik SM. Cost analysis of long established and newer oral antiepileptic drugs available in the Indian market. Int J Med Res Health Sci., 2015; 4(4): 744-48.
6. Wagle L, Swamy MK, Kempe Gowda MB. Cost variation Study of antiepileptic drugs available in India. Asian J Pharm Clin Res., 2016; 9(2): 64-8.
7. Chang BS, Lowenstein DH. Epilepsy. New England J Med., 2003; 349(13): 1257-66.
8. Allisabanavar SA, Reddy NS. Cost variation analysis of various brands of antiepileptic drugs currently available in Indian pharmaceutical market. Int J Basic Clin Pharmacal., 2017; 6: 1666-9.
9. Balakrishnan YS, Patel TC, Chaware AA. Cost variation analysis of anti-epileptic drugs available in the Indian market. Int J Basic Clin Pharmacal, 2025; 14: 550-5.
10. Sai NP, Vedavathi H. Cost analysis study of price variation among the various brands of antiepileptics available in India. Int J Basic Clin pharmacal., 2017; 6: 422-6.
11. Kumar H, Kesari US, Kumar R. Study of the cost variation analysis of antiepileptic drugs available in different brands in Indian pharmaceutical market. International J Bas Clin pharmacal., 2021; 10(5): 523-7.
12. PMBJP Scheme. Available at https: //janaushadhi.gov.in/pmbjb-scheme. Accessed on 23 January, 2025.
13. Ray A, Najmi A, Khandelwal G, Sadasivam B. A cost variation analysis of drugs available in the Indian market for the management of thromboembolic disorders. Cureus., 2020; 12(5): 8712.