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## A Study on the Prices of some Branded Drugs of eight Therapeutic Categories

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### Abstract

**Plan:** Five fastest moving brands of 54 generic drugs in eight therapeutic classes comprising a total of 323 brands were ranked based on retail sales twelve major retailers of Kannur and Kasargod in Kerala using a pretested questionnaire to find the percentage variation in prices between brands.

**Prologue:** Over the years the numbers of drugs whose prices are controlled have come down to ninety one. Rest of the drugs are priced with huge profit margins and even life saving and essential medicines have not been spared.

**Methodology:** A preliminary survey was conducted to understand the therapeutic categories which had highest sales. The selected brands were ranked in the order of their sale volume.

**Outcome:** Percentage price variation between different fast moving brands in the therapeutic classes of Analgesics, Antiasthma, Antibiotics, Cardiovascular, Antidiabetics, Antiulcer, Hypolipidemics and Antipsychotics varies from 33% – 1620%. A price corridor should be fixed for brands coming under these generics to prevent exploitation of patients. Branding and marketing strategies enable top-of-the-mind brand recall to catapult brands to the dominant positions in the minds of prescribers.

**Key words:** prices, branded drugs, pharmaceuticals, retail price

### 1. Introduction

Two hundred and seventy nine essential drugs appearing in alphabetical order in the National Essential Drug List (1996) of the Ministry of Health and Family Welfare and the 173 items which are considered important by that Ministry from the point of view of their use in various Health Programmes, in emergency care, etc., with the exclusion, as in the past, there from of sera & vaccines, blood products, combinations, etc should form the total basket out of which selection of bulk drugs be made for price regulation<sup>1</sup>. Over the years the numbers of drugs whose prices are controlled have come down to 91. Rest of the drugs are priced with huge profit margins and even life saving and essential medicines have not been spared.

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The difference in price between various brands of the same drug is too wide<sup>2</sup>. 34% of the Indian population is below poverty line and 60% is middle class, since people are majorly purchasing drugs out-of-pocket, a price control on drugs is essential.

The Government of India has also made several legislations to prevent unjustifiable pricing of drugs by enacting the Drug Price Control Order (DPCO), 1970<sup>3</sup> as well as incorporating the Essential Drug List (EDL)<sup>4</sup> to keep the prices of medicines at affordable limits. Pharmaceutical companies device escape routes from price control by including ingredients that are not in EDL and making combinations. As pharmacists, we have a unique responsibility to study and communicate the price variation between brands and to better understand the effect of prices on prescription behavior. We embarked on this study to ascertain the degree of price variation among brands of the same generic in order to understand the market and marketing dynamics of the Indian pharmaceutical market.

## **2. Objectives**

The study was undertaken to understand the percentage variation in drug prices of brands and to identify generics which require a price corridor within the same therapeutic segment.

- i) To calculate the percentage differences in prices between lowest and highest priced brands within the same generic category and in eight different therapeutic categories, viz, Analgesics, Antiasthma, Antibiotics, Cardiovasculars, Antidiabetics, Antiulcer, Hypolipidemics and Antipsychotics
- ii) To rank the brands in the order of their sales.
- iii) To study the variation in prices between top selling brands.

## **3. Study Design**

This is a cross sectional, prospective study aimed at finding the percentage variation in pricing of pharmaceuticals available in the Indian market. The fast moving brands of 54 generics in eight therapeutic classes comprising a total of 323 brands were ranked by twelve drug retailers with highest retail sales.

A preliminary survey was conducted to understand the therapeutic categories which had highest sales. Five brands of 54 generics in eight therapeutics categories were selected. A sample questionnaire was prepared. The questionnaire was pretested at different retailers. (See Appendix A) The corrections were made and the final draft was made. Retailers were selected as subjects as they dispensed drugs prescribed by various prescribers and were most aware of the leading brands in the market.

The results of five highest selling brands along with the lowest priced and highest priced brands were tabulated and inferences drawn. The data was subjected to further analysis for percentage differences between the highest and lowest priced brands.

Limitations: The study does not look at all formulations within each generic category. Combination drugs have not been included in this survey. Prices of brands are based on the Current Index of Medical Specialities (CIMS), Jan-Apr, 2012 & May-Aug 2012<sup>2</sup>.

The questionnaire was administered to twelve major chemists in the semiurban setting of major taluks of North Kerala like Thalassery, Kannur, Thaliparamba, Payannur, Kanhangad, and Kasaragod. Interviewers were selected based on the retail sales figures from wholesale distributors.

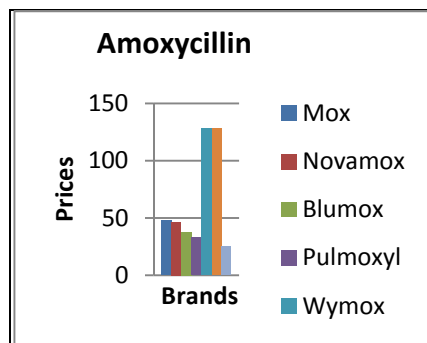
*Subjects.* The subjects interviewed were Pharmacists in retail medical shops who had five to ten years of experience with D.Pharm or B.Pharm qualification.

#### 4. Results & Discussion

The percentage price variation within the following therapeutic groups is as follows:

- a) Antibiotics 162% (Ampicillin) – 1620% (Cefixime) Out of the nine generics in antibiotics, fast moving brands coming under eight generics were priced more than 55% less than the highest priced brand. The highest priced and the fast moving generic is Ampicillin where price corridor should be fixed.

Fig. 1: Prices of leading Amoxycillin brands



- b) Antihypertensives .33% (Nebivolol) – 1205% (Amlodipine) Among six generics in antihypertensive class, fast moving brands are priced 25 – 60% lower than the highest priced brands. Enalapril and nebivolol brands were highly priced irrespective of their sales, therefore requires a price corridor.

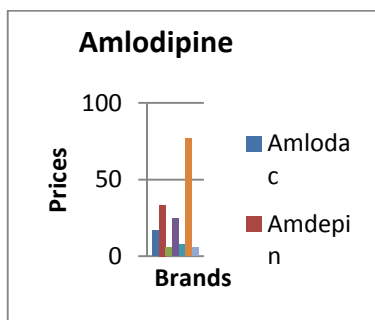


Fig. 2: Prices of leading Amlodipine brands

- c) Hypoglycemics: 121% (Rosiglitazone) – 944% (Glimiperide)  
 Among eight oral hypoglycemic and insulin generics, except for Metformin and Rosiglitazone brands, all other generic drugs are priced 20-50% lesser than the fast moving brand. Metformin and Rosiglitazone require a price corridor.

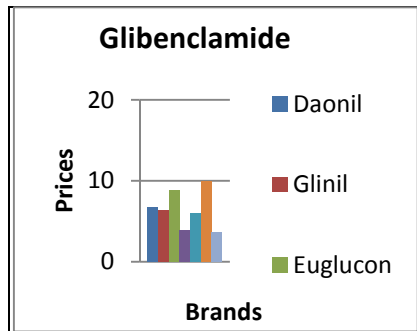


Fig. 3: Prices of leading Glibenclamide brands

- d) Antiulcers: 50% (Cisapride) – 959% (Omeprazole)  
 Among the five antiulcer generics, brands of other generics are priced approximately 60-80% lesser than Cisapride and Pantoprazole brands, therefore requires a price corridor.

Fig. 4: Prices of leading Omeprazole brands

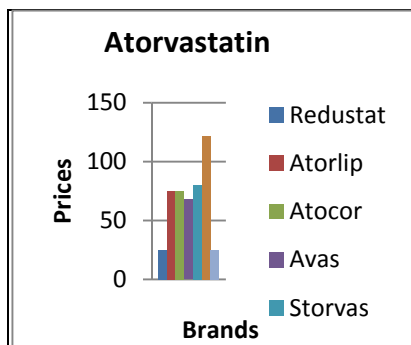
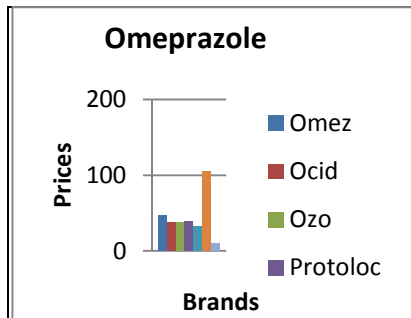
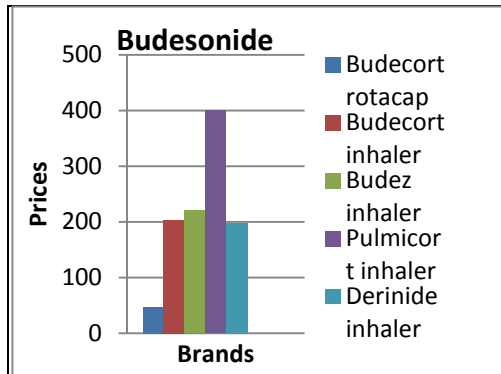


Fig. 5: Prices of leading Atorvastatin brands

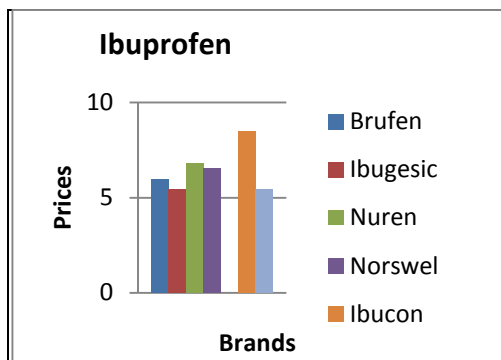
- e) Hypolipidemics :50% (Rosuvastatin) – 387% (Atorvastatin)
- f) Antiasthmatics:51% (Montelukast) – 175% (Theophylline)  
 Out of the six antiasthma generics, fast moving brands are 25-50% lower priced than the highest priced brand. This segment is dominated by Cipla Ltd.

Fig. 6: Prices of leading Budesonide brands



- g) Analgesics:42% (Piroxicam) – 521% (Indomethacin)  
 In analgesics category, all other generic brands are highest priced except indomethacin, therefore requires price corridor.

Fig. 7: Prices of leading Ibuprofen brands



- h) Antipsychotics:55% (Olanzapine) - 205% (Haloperidol)  
 Among the seven antipsychotic generics, chlorpromazine, Resperidone, Thioridazine brands are lowest priced but also have the highest percentage variation of 90%. Most of the fast moving brands are highly priced and are at least 50% costlier than the lowest priced brand, therefore requires a price corridor.

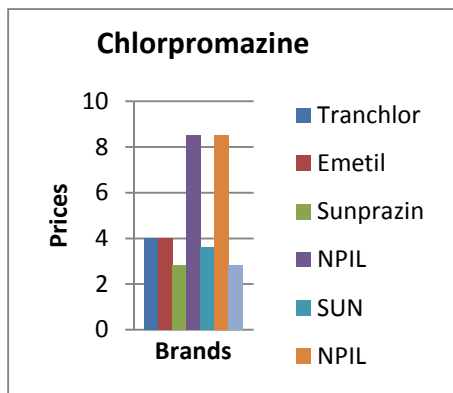


Fig. 8: Prices of leading Chlorpromazine brands

Prices of the most selling brands are at least 50% less than the most priced brand in 6 of the 8 therapeutic categories. Though one of the main objectives was to regulate the entry of substandard or harmful drugs and cosmetics in to the country<sup>5</sup>, complete control and regulation of such a vital industry is still not complete, exposing the population to doubtful quality and unregulated prices. The aim of all managers is to generate a surplus or profit<sup>7</sup>. These considerations must be tamed while operating in country with one of the highest levels of poverty.

Pharmaceutical expenditures in developing countries involve substantial private, out-of-pocket, payments by individual patients, with the poor spending a disproportionate share of household income on the purchase of drugs<sup>8</sup> (sometimes more than twice as much as the richest 10% of the population spends<sup>9</sup>).

## 5. Conclusion

Since there is a wide variation in prices of drugs within the same generic brands, it is highly recommendable to put a price corridor taking into consideration the quality standards adopted by different companies and knowledge building marketing activity like sponsorship for medical conferences, etc.

Branding and marketing activities enable top of the mind recall among prescribers and catapult brands to No.1 spot irrespective of the price of the brand. The prescriber is well aware of the prices of different brands and customers are protected from pricing of drugs by pharmaceutical companies to a greater extent by prescriber's judgment. Prescribers tend to prescribe all brands irrespective of cost. Quality and not price is the first factor considered while prescribing, as prescribers tend to prescribe brands of listed companies. Government and regulatory institutions should play their part more proactively with due care of weaker sections of Indian population.

### Sample Questionnaire

1. Rank five brands under each generic drug belonging to eight major pharmacologic groups on the basis of their sale in your counter.

#### I. ANTIBIOTICS

COMMON BRANDS		Price	rank
<i>Amoxicillin</i>			
Mox cap 250mg	10	47.70	1
Novamox cap 250mg	10	46.50	2
Blumox cap 250mg	10	38.00	3
Zovax tab 250mg	10	32.00	
Presmox tab 500mg	10	27.14	
Pulmoxyl cap 250mg	10	33.00	4
Wymox cap 250mg	10	128.00	5

#### II. ANTIHYPERTENSIVE DRUGS

<i>Amlodipine</i>	Packing	Price	Rank
Amlodac tab 5mg	10	17.00	1
Amdepin tab 5mg	10	33.56	2
Amlokind tab 5mg	10	5.90	3
Amlopres tab 5mg	10	24.60	4
Amtas tab 5mg	10	7.80	5
Amlopres tab 5mg	10	24.57	
Amlovas tab 5mg	10	23.24	
Amlong tab 5mg	10	26.80	

#### III. ORAL HYPOGLYCAEMIC AGENTS

<i>Glibenclamide</i>			
Daonil tab5mg	10	6.68	1
Glunil tab5mg	10	6.30	2
Glibet tab 5mg	10	6.00	
Euglucon tab5mg	10	8.80	3
Gluconil tab 5mg	10	6.68	
Diolil tab 5mg	10	5.90	
Aviglen tab 5mg	10	7.30	
Semidaonil 2.5	10	3.83	4
Semi-Euglucon tab 2.5mg	10	6.05	5
Glybovin tab 5mg	10	4.92	

#### IV. ANTIULCER DRUGS

<i>Omeprazole</i>			
Cozep Cap 20mg	10	37.27	
Ocid Cap 20mg	10	38.40	2
Omezol cap 20mg	10	25.00	
Omez cap 20mg	10	47.30	1
Ozo DR Cap 20mg	10	37.50	3
Protoloc cap 20mg	10	39.00	4
Romesec Ec Tab 20mg	10	33.05	5
Tacko-M tab 20mg	10	21.00	

#### V. ANTIHYPERLIPIDEMICS

<i>Atorvastatin</i>			
Atorva tab 10mg	10	80.00	
Atorlip FC-tab 10mg	10	75.25	2
Atocor tab 10mg	10	75.00	3
TG-tor FC-tab 10mg	10	74.50	
Tonact tab 10mg	10	65.13	
Modlip tab 10mg	10	55.30	
Atorfit tab 10mg	10	25.00	
Avas tab 10mg	10	68.00	4
Avastin tab 10mg	10	60.00	
Storvas tab 10mg	10	80.00	5
Redustat tab 10mg	10	25.50	1

#### VI. ANTI ASTHMATIC

<i>Budesonide</i>			
Budecort inhaler MDI 100mcg/1dose	1	203.50	2
Budez inhaler MDI 100mcg/1puff	1	220.00	3
Derinide MDI 100mc/1puff	200md	198.00	5
Pulmicort MDI 100mcg/1puff	400md	400.22	4
Budecort rotacaps cap 100mcg	30	47.00	1



## VII. ANALGESICS

### *Ibuprofen*

Brufen tab 400mg	10	5.97	1
Ibucon tab400mg	10	8.5	
Ibugesic FC tab400mg	10	5.42	2
Nuren tab 400mg	10	6.81	3
Tabalon tab 400mg	10	6.74	
Norswel Tab 400mg	10	6.54	4

## VIII. ANTIPSYCHOTICS

### *Chlorpromazine*

Tranchlor Tab50mg	10	4.02	1
Chlorpromazine Tab 50mg (NPIL)	10	8.54	4
Chlorpromazine Tab 50mg (Sun)	10	3.60	5
Emetil Tab 50mg	10	4.02	2
Sun prazin Tab 50mg	10	2.84	3
Megatil Tab 50mg	10	3.17	
Seractil Tab 50mg	10	3.65	

Name of the Pharmacist :  
 Qualification :  
 Number of years of experience :  
 Number of years of work with current employer :  
 Address :

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