

EVALUATION OF CURRENT PRESCRIBING PRACTICES - A METHOD TO REDUCE THE COST OF THERAPY

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Abstract

In India, there are more chances of the diseases in the poor, who are unaware of hygiene and it is very difficult for them to afford the treatment. The escalating costs of prescription drugs have become a substantial economic burden on patients with limited income. Since a large number of people in developing countries are economically challenged, many of them cannot afford required treatment. We need to ensure that the poor and vulnerable are not priced out of access to the medications they need to keep them out of the hospital, and to ensure a good quality of life. Any method which decreases the cost of therapy can be boon for the poor and the vulnerable. There are different brands of a single drug available in the market with different prices. But these drugs that are marketed under different brand names are similar in nature (i.e, they are similar in API , dose and form). So, the present study was based on the comparison of prices of different brands of extensively used drugs in the health care system which are employed for chronic or acute usage for decreasing the mortality and the morbidity of the patients. Results have shown that in the current scenario, upto 99.72% cost could be saved by substituting the highest priced brand with the lowest priced brand in a prescription. Hence , it is possible for a physician to decrease the cost of therapy especially of poor patients by comparing the prices of different brands of drugs & prescribing the low priced brands.

Keywords: prescription drugs, economically, vulnerable, API.

INTRODUCTION

Anyone who has flipped through a newspaper recently knows that the escalating cost of prescription drugs¹⁻⁴ is an issue of national concern, especially as such drugs become an increasingly significant element of medical care. This constitutes a substantial economic burden on patients, physicians, hospitals, health-care systems, and society as a whole. When a patient with a limited income must choose between buying groceries or filling a prescription, the prescription is likely to go unfilled. Every day millions of population take medications prescribed for acute and chronic medical conditions to sustain or improve their health. Countless patients pay out-of-pocket for their medications because they do not have insurance or because they cannot afford the high co-payments or deductibles required by their insurance plan. Every day millions more who should take prescription drugs do not because of the associated high cost. Too many people — particularly those most vulnerable in society — are forced to choose between life's basic necessities — food, shelter, clothing — and their health because they cannot afford their prescribed medications. For a country often cited as providing the most advanced and sophisticated medical care in the world, this should never be the case.

One relatively easy way to help the low-income patients is to evaluate the current prescribing practices. Cost is one among the various factors to be taken into account in drug prescribing.

Without even realizing it, the prescriber may be in the habit of prescribing certain drugs to treat certain conditions, regardless of cost. If there arises a question when the prescriber reaches the prescription pad “Is there a less expensive alternative to treat the problem that will work as well for the patient?” Obviously as the prescriber don't want to provide inferior care just to save the patient a few bucks. Rather, be attuned to opportunities to provide the same excellent care for less, by substituting a high priced brand with a low priced brand.

The economic analyses provided in the literature must be understood and used in order to adequately compare and choose the best option. This reports the less costly procedures for the treatment. Cost data are derived from current actual costs in India.

MATERIALS AND METHODS

This cost analysis study using data derived from current costs of various drugs in India⁵⁻⁷ included data from Drug Today and CIMS. The costs of different brands of similar drugs (similar in API, dose and form) have been compared manually.

The price difference of various drugs have been calculated⁸⁻¹¹ using the formula :

$$\text{Price difference} = \text{Cost of highest priced brand available} - \text{Cost of lowest priced brand available.}$$

The cost savings percentage of various drugs have been calculated using the formula :

$$\text{Cost savings percentage} = \frac{\text{Price difference} * 100}{\text{Cost of highest priced brand available}}$$

OR

$$\text{Cost savings percentage} = \frac{(\text{Cost of highest priced brand available} - \text{Cost of lowest priced brand available}) * 100}{\text{Cost of highest priced brand available}}$$

RESULTS

Ethionamide is an Anti tubercular agent. A 250mg Tablet of Ethionamide has been manufactured by Le Sante under the brand name Mycotuf @ Rs.39.50/- (per unit) and the same formulation has been manufactured by Sitrocs zenetica under the brand name Sitromide 250 @ Rs.14.50/- (per unit). Thus by prescribing the later cost savings upto 77.40% could be achieved.

Similarly as minimum as 14.20% cost could be saved in this class of drugs (Anti tubercular agents) by prescribing the lowest priced brands.

The price difference and the cost savings percentage of various drugs under Anti tubercular agents have been tabulated and shown in Table-01.

TABLE 01: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-TUBERCULAR DRUGS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS-PS	PRICE DIFFERENCE RS-PS	COST SAVINGS %
RIFAMPICIN	TAB.450mg	SCC2	MANEESH H.CARE	05.75	01.52	26.43
		RIMACTANE	NOVARTIS	04.23		
RIFAMPICIN	CAP.450mg	COXID-450	ARISTO	06.60	02.20	33.33
		RCIN	LUPIN	04.40		
RIFAMPICIN	CAP.300mg	GOCOX	IPCA	04.46	01.80	40.36
		RIFAMPILA	ALBERT DAVID	02.66		
RIFAMPICIN	CAP.150mg	RCIN	LUPIN	01.69	00.24	14.20
		RIFAMPILA	ALBERT DAVID	01.45		
RIFAMPIN+INH	TAB.450+300mg	RIMACTAZID	NOVARTIS	07.71	03.43	44.48
		CAVIDIN-INH	MERIND	04.28		
RIFAMPIN+INH	CAP.450+300mg	RIFAKEM.INH	ALKEM	06.67	03.23	48.42
		ARZADE	ALBERT DAVID	03.45		
ETHAMBUTOL	TAB.800mg	ETHRIK	LANARK	05.50	04.21	76.54
		COXYTOL	STADMED	01.29		
ETHAMBUTOL	TAB.1000mg	MYCOBUTOL	LE SANTE	07.21	03.59	49.74
		CAVIBUTOL	MERIND	03.62		
ETHAMBUTOL	TAB.600mg	THEMIBUTOL	THEMIS	03.36	01.14	34.02
		CAVIBUTOL	MERIND	02.22		
ETHAMBUTOL	TAB.400mg	MYCOBUTOL	LE SANTE	02.28	01.60	70.21
		COXYTOL	STADMED	00.68		
ETHAMBUTOL	TAB.200mg	THEMIBUTOL	THEMIS	01.26	00.87	68.88
		ALBUTOL	ALKEM	00.39		
ETHAMBUTOL+INH	TAB.800+300mg	COMBUNEX	LUPIN	05.04	03.46	68.76
		INABUTOL FORTE	THEMIS CHEMICALS	01.57		
PYRAZINAMIDE	TAB.1000mg	PZA CIBA	NOVARTIS	09.92	06.38	64.31

		RIZAP	GLAXOSMITH KLINE	03.54		
PYRAZINAMIDE	TAB.750mg	PYZINA	LUPIN	07.70	05.17	67.15
		MONTOZIN	SHREYA	02.53		
PYRAZINAMIDE	TAB.500mg	M ZIDE	MARC LAB	04.90	03.19	65.06
		MONTOZIN	SHREYA	01.71		
R+H+Z+E	TAB.(1+1+2+1) 450+300+1500+800mg	ANACOX-KIT	AJANTA PHARMA	19.00	07.80	41.05
		4D KIT	NOVARTIS	11.20		
STREPTOMYCIN	INJ.1gm vial	AMBISTRYN-S	NICHOLAS	09.84	05.83	59.25
		MERSTREP	MERIND	04.01		
CYCLOSERINE	CAP.250mg	CYCLOCOX	RADICURA PHARMA	48.50	09.00	18.56
		CYCLORIN	LUPIN	39.50		
ETHIONAMIDE	TAB.250mg	MYCOTUF	LE SANTE	14.50	11.22	77.40
		SITROMIDE-250	SITROCS ZENETICA	03.28		
PROTHIONAMIDE	TAB.250mg	MYCOTUF-P	LE SANTE	14.90	07.90	53.02
		MD PRIDE	MANEESH H.CARE	07.00		

Clofazimine is an Anti leprotic agent. A 50mg Capsule of Clofazimine has been manufactured by Genetic pharma under the brand name Clofaz @ Rs.01.88 /- (per unit) and the same formulation has been manufactured by Gary pharma under the brand name Feza @ Rs.01.40 /- (per unit). Thus by prescribing the later cost savings upto 25.53% could be achieved.

The price difference and the cost savings percentage of various drugs under Anti leprotic agents have been tabulated and shown in Table-02.

TABLE 02: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-LEPROTICS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS - PS	PRICE DIFFERENCE RS - PS	COST SAVINGS %
CLOFAZIMINE	CAP.50mg	CLOFAZ	GENETIC PHARMA	01.88	00.48	25.53
		FEZA	GARY PHARMA	01.40		
CLOFAZIMINE	CAP.100mg	CLOFAZ	GENETIC PHARMA	03.30	00.70	21.21
		FEZA	GARY PHARMA	02.60		

Acyclovir is an Anti Viral agent. A 200mg Tablet of Acyclovir has been manufactured by cadila- H under the brand name Cyclovir @ Rs.19.50 /- (per unit) and the same formulation has been manufactured by Innova (IPCA) under the brand name Ocurax200 @ Rs.05.40 /- (per unit) . Thus by prescribing the later cost savings upto 72.30% could be achieved.

Similarly as minimum as 03.06% cost could be saved in this class of drugs (Anti viral agents) by prescribing the lowest priced brands.

The price difference and the cost savings percentage of various drugs under Anti viral agents have been tabulated and shown in Table-03.

TABLE 03: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-VIRAL AGENTS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS - PS	PRICE DIFFERENCE RS - PS	COST SAVINGS %
ACYCLOVIR	TAB.800mg	LOVIR	ELILILLY	44.09	25.69	58.27
		OCURAX 200	INNOVA (IPCA)	18.40		
ACYCLOVIR	TAB.400mg	LOVIR	ELILILLY	23.96	13.96	58.26
		CYCLOPIZ	GARY PHARMA	10.00		
		CYCLOVIR	CADILA-H	19.50		

ACYCLOVIR	TAB.200mg	OCURAX 200	INNOVA(IPCA)	05.40	14.10	72.30
FAMCICLOVIR	TAB.250mg	FAMTREX	CIPLA	39.20	01.20	03.06
		FAMIR -250	CANBRO H.CARE	38.00		
VALACYCLOVIR	TAB.1000mg	VARIL	CANBRO H.CARE	55.10	03.80	06.91
		VALCIVIR	CIPLA	51.30		
VALACYCLOVIR	TAB.500mg	VARIL	CANBRO H.CARE	35.30	03.47	09.83
		VALCIVIR	CIPLA	31.83		
RIBAVIRIN	SYP.50mg/5ml (30ml)	RIBAVIN	LUPIN	95.70	14.23	14.87
		VIRAZIDE	LUPIN	81.47		
INTERFERONS	INJ.3million I.U 1 vial	VIRAFERON	FULFORD	1785.40	895.40	50.15
		SHANFERON	SHANTA BIOTECHNICS	890.00		
INTERFERONS	INJ.5million I.U 1 vial	VIRAFERON	FULFORD	2835.60	1490.60	52.57
		SHANFERON	SHANTA BIOTECHNICS	1345.00		

Lamuvudine is an Anti retro viral agent. A 150mg Tablet of Lamuvudine has been manufactured by Nicholas piramal under the brand name Lamavid @ Rs.50.00 /- (per unit) and the same formulation has been manufactured by Cytomed (Alkem) under the brand name Retrolam @ Rs.09.00 /- (per unit) . Thus by prescribing the later cost savings upto 82.00% could be achieved.

Similarly as minimum as 01.87% cost could be saved in this class of drugs (Anti retro viral agents) by prescribing the lowest priced brands.

The price difference and the cost savings percentage of various drugs under Anti retro viral agents have been tabulated and shown in Table-04.

TABLE 04: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-RETRO VIRAL AGENTS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS - PS	PRICE DIFFERENCE RS - PS	COST SAVINGS %
DIDANOSINE	CAP.400mg	VIROSINE DR	CROSLANDS	65.00	25.41	39.09
		DINEX EC	CIPLA	39.59		
DIDANOSINE	CAP.250mg	VIROSINE DR	CROSLANDS	41.67	17.06	40.94
		DINEX EC	CIPLA	24.61		
LAMIVUDINE	TAB.100mg	LAMUVID	NICHOLAS PIRAMAL	30.00	22.40	74.67
		VIROLAM	CROSLANDS	07.60		
LAMUVIDINE	TAB.150mg	LAMUVID	NICHOLAS PIRAMAL	50.00	41.00	82.00
		RETROLAM	CYTOMED(ALKEM)	09.00		
STAVUDINE	TAB.30mg	STADIN	SAIN MEDICAMENTS	04.50	00.70	15.55
		VIROSTAV	CROSLANDS	03.80		
STAVUDINE	TAB.40mg	STADIN	SAIN MEDICAMENTS	05.10	00.80	15.69
		VIROSTAV	CROSLANDS	04.30		
STAVUDINE	CAP.30mg	STAVEX	CABL	07.87	04.34	55.15
		STAVIR	CIPLA	03.53		
STAVUDINE	CAP.40mg	STAVEX	CABL	09.00	05.04	56.01
		STAVIR	CIPLA	03.96		
ZIDOVUDINE	TAB.100mg	ZIDDIVIR	SAIN MEDICAMENTS	07.90	01.60	20.25
		VIRO-Z	CROSLANDS	06.30		

ZIDOVUDINE	TAB.300mg	ZIDDIVIR	SAIN MEDICAMENTS	20.50	05.20	25.36
		ZIDOMAX	CYTOMED(ALKEM)	15.30		
ZIDOVUDINE	CAP.100mg	ZIDOVEX	CABL	09.00	03.00	33.33
		ZIDOMAX	CYTOMED(ALKEM)	06.00		
EFAVIRENZ	CAP.200mg	EFERVEN	CROSLANDS	35.87	07.08	19.75
		EFAVIR	CIPLA	28.78		
EFAVIRENZ	CAP.600mg	EFERVEN	CROSLANDS	100.00	33.34	33.34
		EFAVIR	CIPLA	66.66		
EFAVIRENZ	TAB.600mg	REVENZ	SAIN MEDICAMENTS	79.50	06.34	07.97
		EVIRENZ	CYTOMED(ALKEM)	73.16		
NEVIRAPINE	TAB.200mg	NEVIPAN	CROSLANDS	17.00	03.50	20.58
		NEVIRETRO	CYTOMED(ALKEM)	13.50		
ADEFOVIR	TAB.10mg	ADFOVIR	SUN PHARMA	25.40	05.40	21.26
		ADHEB	RANBAXY(REXCEL)	20.00		
SAQUINAVIR	TAB.500mg	MAXIMUNE	CIPLA	53.50	03.50	01.87
		SAQUIN	GENX PHARMA	50.00		
TENOFVIR	TAB.300mg	TENOF	GENX PHARMA	150.00	100.00	66.67
		TENVIR	CIPLA	50.00		

Albendazole is an Anti helminthic agent. A 400mg Tablet of Albendazole has been manufactured by Wonder Asrox under the brand name Asben @ Rs.20 /- (per unit) and the same formulation has been manufactured by Trans L. Sciences under the brand name Tranford @ Rs.01.20 /- (per unit). Thus by prescribing the later cost savings upto 94.00% could be achieved.

Similarly as minimum as 36.71% cost could be saved in this class of drugs (Anti helminthic agents) by prescribing the lowest priced brands.

The price difference and the cost savings percentage of various drugs under Anti helminthic agents have been tabulated and shown in Table-05.

TABLE 05: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-HELMINTIC DRUGS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS - PS	PRICE DIFFERENC E RS - PS	COST SAVING S %
MEBENDAZOL E	TAB.100mg	MEBEX	CIPLA	02.67	02.07	77.53
		MEBAZOLE	TORRENT	00.60		
MEBENDAZOL E	SUSP.100mg/5 ml (30ml)	MEBEX	CIPLA	19.95	11.95	59.90
		HELMINTOL	MEDLEY	08.00		
ALBENDAZOL E	TAB.400mg	ASBEN	WONDER ASROX	20.00	18.80	94.00
		TRANFORD	TRANS L.SCIENCES	01.20		
ALBENDAZOL E	SUSP.200mg/5 ml (10ml)	COMBANTRIN -A	PFIZER	24.90	14.95	60.04
		MILIBEND	MILIEUS(GLENMAR K)	09.95		
PYRANTL PAMOATE	TAB.250mg	EXPENT	MERIND	04.70	01.93	41.06
		NEMOCID	IPCA	02.77		
LEVAMISOLE	TAB.50mg	DICARIS	JOHNSON & JOHNSON	11.85	04.35	36.71
		LEVAZOLE	GARY PHARMA	07.50		
LEVAMISOLE	TAB.150mg	DICARIS	JOHNSON & JOHNSON	29.75	15.25	51.26
		VERMISOL	KHANDELWAL	14.50		

IVERMECTIN	TAB.6mg	AGIMECT	AEGIS PHARMA	17.50	08.50	48.57
		IVEL	DERMAWIN	09.00		
IVERMECTIN	TAB.12mg	AGIMECT	AEGIS PHARMA	27.00	11.00	40.74
		IVEL	DERMAWIN	16.00		

Ornidazole is an Anti protozoal agent. A 500mg Tablet of Ornidazole has been manufactured by Marc lab under the brand name Oz@ Rs.44.90 /- (per unit) and the same formulation has been manufactured by Medley under the brand name Onidaz @ Rs.04.50 /- (per unit) . Thus by prescribing the later cost savings upto 89.98% could be achieved.

Similarly as minimum as 05.40% cost could be saved in this class of drugs (Anti protozoal agents) by prescribing the lowest priced brands.

The price difference and the cost savings percentage of various drugs under Anti protozoal agents have been tabulated and shown in Table-06.

TABLE 06: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-PROTOZOAL DRUGS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS - PS	PRICE DIFFERENC E RS - PS	COST SAVINGS %
METRONIDAZOLE	TAB.200mg	METROGYL	J.B.CHEMICALS	00.45	00.10	18.75
		METRON	ULTICARE(ALKEM)	00.36		
METRONIDAZOLE	TAB.400mg	METROGYL	J.B.CHEMICALS	00.79	00.17	21.91
		ASKAGYL	ASKLEPIOS REMEDIES	00.62		
METRONIDAZOLE	I.V. Infusion 500mg/100ml(100ml)	METRON	ULTICARE(ALKEM)	16.07	04.55	28.31
		ZOACIDE	MERIND	11.52		
METRONIDAZOLE	SUSP.200mg/5ml (60ml)	METROGYL	J.B.CHEMICALS	15.78	05.17	32.76
		ALDEZOLE	ALBERT DAVID	10.61		
ORNIDAZOLE	TAB.500mg	OZ	MARC LAB	44.90	40.40	89.98
		ONIDAZ	MEDLEY	04.50		
TINIDAZOLE	TAB.300mg	TINIBA	CADILA.H	03.56	02.77	77.80
		AMEBAMAGM A	WYETH	00.79		
TINIDAZOLE	TAB.500mg	TINIBA	CADILA.H	06.77	04.54	67.06
		COSTINI	C F L PHARMA	02.23		
SECNIDAZOLE	TAB.1gm	AMITAB	WOCKHARDT	19.95	04.20	21.05
		SECNITOR	TORRENT	15.75		
SECNIDAZOLE	TAB.500mg	SECNITOR	TORRENT	07.98	05.78	72.41
		SECNIL	NICHOLAS	02.20		
SECNIDAZOLE	TAB.D.S.1gm	SECZOL	INTAS	18.50	01.00	05.40
		NOAMEBA-DS	IPCA	17.50		
SATRANIDAZOLE	TAB.300mg	SATROGYL	ALKEM	08.55	04.99	58.36
		TINIBA	CADILA	03.56		
NITAZOXANIDE	TAB.500mg	NITCOL	RANBAXY(REXCEL)	06.95	00.42	06.12
		NITACURE	ALEMBIC(MEGACAR E)	06.52		
8-Hydroxyquinolines QUINODOCHLOR	TAB.250mg	ENTEROQUINO L	EAST INDIA	00.55	00.29	52.45
		QUINOFORM	ALBERT DAVID	00.26		

Fluconazole is an Anti fungal agent. A 150mg Tablet of Fluconazole has been manufactured by Altius L.Sciences under the brand name Alfucon@ Rs.34.00 /- (per unit) and the same formulation has been manufactured by Geneka health care under the brand name Flugen @ Rs.00.09 /- (per unit) . Thus by prescribing the later cost savings upto 99.72% could be achieved.

Similarly as minimum as 35.25% cost could be saved in this class of drugs (Anti fungal agents) by prescribing the lowest priced

brands.

The price difference and the cost savings percentage of various drugs under Anti fungal agents have been tabulated and shown in Table-07.

TABLE 07: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-FUNGAL AGENTS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS - PS	PRICE DIFFERENCE RS - PS	COST SAVINGS %
ITRACONAZOLE	CAP.100mg	SPORANOX	JOHNSON & JOHNSON	76.12	42.12	55.34
		J.D.FLU	ABENAVA MEDI PHARMA	34.00		
AMPHOTERICIN B	INJ.50mg vial	PHOSOME	CIPLA	7150.00	6869.17	96.07
		FUNGIZONE IV	NICHOLAS	280.83		
GRISEOFULVIN	TAB.250mg	GRISGEO	GEOLIFE SCIENCES	02.40	00.85	35.25
		GRISOVIN FP	GLAXO - SMITHKLINE	01.55		
GRISEOFULVIN	TAB.375mg	GRISORAL OD	BAL PHARMA	03.30	01.37	41.52
		GRIS OD 375	DR.REDDYS LAB	01.93		
KETOCONAZOLE	TAB.200mg	NIZRAL	JOHNSON & JOHNSON	34.70	33.85	97.55
		FURID	MEDO CHEM LAB	00.85		
TERBINAFINE	TAB.250mg	LAMISIL	NOVARTIS	89.07	86.58	97.20
		TORABEST	VIVIA DERMA	02.49		
FLUCONAZOLE	TAB.150mg	ALFUCON	ALTIUS LIFE SCIENCES	34.00	33.91	99.72
		FLUGEN	GENEKA HEALTH CARE	00.09		

Arteether is an Anti malarial agent. A 150mg Injection(3*2ml) of Arteether has been manufactured by Themis under the brand name E-mal@ Rs.346.50 /- (per unit) and the same formulation has been manufactured by leo under the brand name Arthur @ Rs.60.00 /- (per unit). Thus by prescribing the later cost savings upto 82.68% could be achieved.

Similarly as minimum as 10.42% cost could be saved in this class of drugs (Anti malarial agents) by prescribing the lowest priced brands.

The price difference and the cost savings percentage of various drugs under Anti malarial agents have been tabulated and shown in Table-08.

TABLE 08: COMPARISON OF PRICES OF DIFFERENT BRANDS OF ANTI-MALARIAL AGENTS

DRUG	DOSE & FORM	BRAND	COMPANY	PRICE RS - PS	PRICE DIFFERENCE RS - PS	COST SAVINGS %
SULFADOXINE+ PYRIMETHAMINE	TAB.500mg+25mg	PYRALFIN	LUPIN	03.73	02.23	59.92
		MALOCIDE	TORRENT	01.49		
CHLOROQUINE	TAB.250mg	LARIAGO	IPCA	00.70	00.37	53.07
		LAQUIN	STADMED	00.33		
CHLOROQUINE	TAB.D.S.500mg	LARIAGO	IPCA	01.38	00.35	25.65
		REOCHIN	BAYER	01.02		
CHLOROQUINE	INJ.64.5mg/1ml (5ml vial)	LARIAGO	IPCA	05.97	04.31	72.19
		LAQUIN	STADMED	01.66		
	INJ.64.5mg/1ml	LARIAGO	IPCA	20.10		

CHLOROQUINE	(30ml vial)	QUINROSS	MERIND	12.94	07.16	35.62
MEFLOQUINE	TAB.250mg	MEFLOTAS	INTAS	52.00	13.67	26.29
		FALCITAL	CADILA	38.33		
QUININE SULPHATE	TAB.300mg	SACQUINE	SAC PHARMA	06.99	02.76	39.56
		KWINIL	INTAS	04.22		
QUININE SULPHATE	TAB.600mg	QSTEC	MCW HEALTH CARE	11.40	01.70	14.91
		CINKONA	INTIMA (IPCA)	09.70		
QUININE SULPHATE	INJ.300mg/1ml	KWINIL	INTAS	14.75	03.20	21.69
		QINARSOL	CIPLA	11.55		
QUININE SULPHATE	INJ.300mg/2ml	QINARSOL	CIPLA	22.00	03.00	13.64
		CINKONA	INTIMA (IPCA)	19.00		
PRIMAQUINE	TAB.7.5mg	LEOPRIME	LEO	2.14	00.34	15.97
		MALIRID	IPCA	01.80		
PRIMAQUINE	TAB.15mg	PRIMEC	MCW HEALTH CARE	04.80	01.00	20.83
		TPQUIN-P	TAURUS LAB	03.80		
ARTESUNATE	TAB.50mg	ULTERIA	CIPLA	45.74	35.74	78.14
		BRATHER	BALTIC PHARMA	10.00		
ARTESUNATE	INJ.60mg vial	FALCIGO	ZYDUS CADILA	225.00	126.00	56.00
		FALSITIS AR	ALLENTIS PHARMA	99.00		
ARTEETHER	INJ.150mg (3*2ml)	E -MAL	THEMIS	346.50	286.50	82.68
		ARTHUR	LEO	60.00		
ARTEETHER	INJ.150mg/2ml	EV-THER	EVENTS PHARMA	112.00	63.00	56.25
		EROD-M	BESTOCHEM	49.00		
ARTEETHER	INJ.75mg/1ml	BETHER	AURIGA LABS	52.00	24.00	46.15
		FALSITIS	ALLENTIS PHARMA	28.00		
ARTEMETHER	CAP.40mg	LARITHER	IPCA	21.60	02.25	10.42
		MALITHER	THEMIS MEDI CARE	19.35		

DISCUSSION

The present results of the economic analysis done by comparing the prices of different brands of most widely employed drugs in the health care system are evidences that there exists a way for the prescriber to reduce the cost of prescription i.e., by substituting the highly priced brand available for a drug with an alternative low priced brand of the same drug available. This cost analysis is mainly focused on comparing the costs of different brands of drugs and establishing the cost savings in percentage i.e., upto which extent we could save economy by substituting the highest priced brands with the low cost alternative brands available.

Evidences from the results obtained includes :

Anti tubercular agents :

Upto 77.40% cost could be saved on Ethionamide Tab.250mg by prescribing the low cost alternative brand. Similarly , 76.54% on Ethambutol Tab.800mg , 70.21% on Ethambutol Tab.400mg and 68.88% on Ethambutol Tab.200mg could be saved by prescribing their lowest priced alternative brands.

Anti Leprotic agents :

Upto 25.53% cost could be saved on Clofazimine Cap.50mgby prescribing the low cost alternative brand.

Anti Viral agents :

Upto 72.30% cost could be saved on Acyclovir Tab.200mg by prescribing the low cost alternative brand. Likewise , 58.26%

on 400mg Tab. and 58.27% on 800mg Tab. could be saved for Acyclovir by substituting the high priced brands with the low priced brands available.

Anti Retro Viral agents :

Upto 82 % cost could be saved on Lamuvidine Tab.150mg by prescribing the low cost alternative brand. Similarly , 74.67% on Lamuvidine Tab.100mg and 66.67% on Tenofovir Tab.300mg could be saved by substituting highest priced brands with their low priced alternative brands available.

Anti Helmintic agents :

Upto 94% cost could be saved on Albendazole Tab.400mg by prescribing the low cost alternative brand which is represented in figure-01. Similarly , 77.53% cost could be saved on Mebendazole Tab.100mg by substituting highest cost brand with its low cost alternative brand.

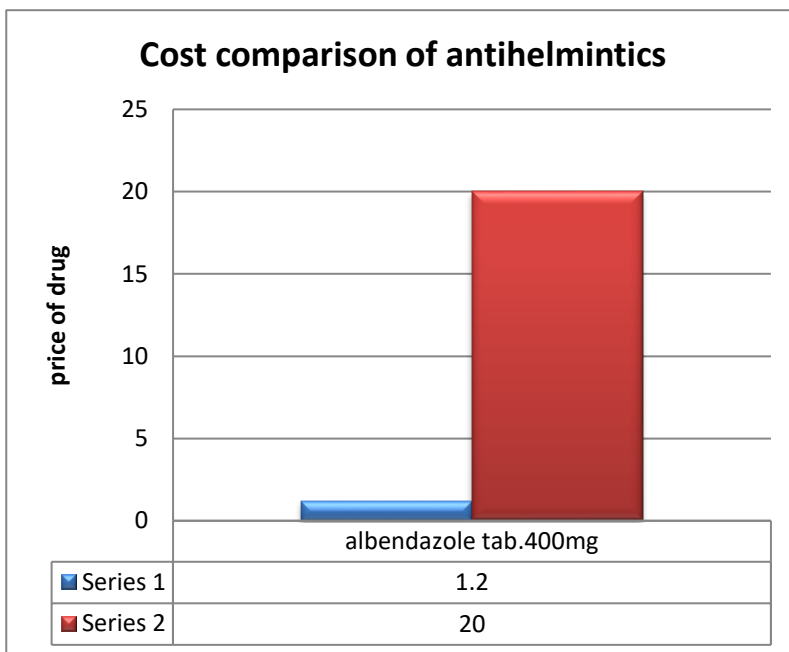


FIGURE 01: COST COMPARISON BETWEEN DIFFERENT BRANDS FOR ANTI-HELMINTICS.

Anti Protozoal agents :

Upto 89.98% cost could be saved on Ornidazole Tab.500mg and 77.80% on Tinidazole Tab.300mg and 72.41% on Secnidazole Tab.500mg could be saved by substituting highest cost brands with their low cost alternative brands.

Anti Fungal agents :

Amazingly , upto 99.72% cost on Fluconazole Tab.150mg , 97.55% on Ketoconazole Tab.200mg , 97.20% on Terbinafine Tab.250mg and 96.07% on Amphotericin-B Inj.50mg vial could be saved by prescribing the low cost alternative brands available. Figure-02 represents these amazing results.

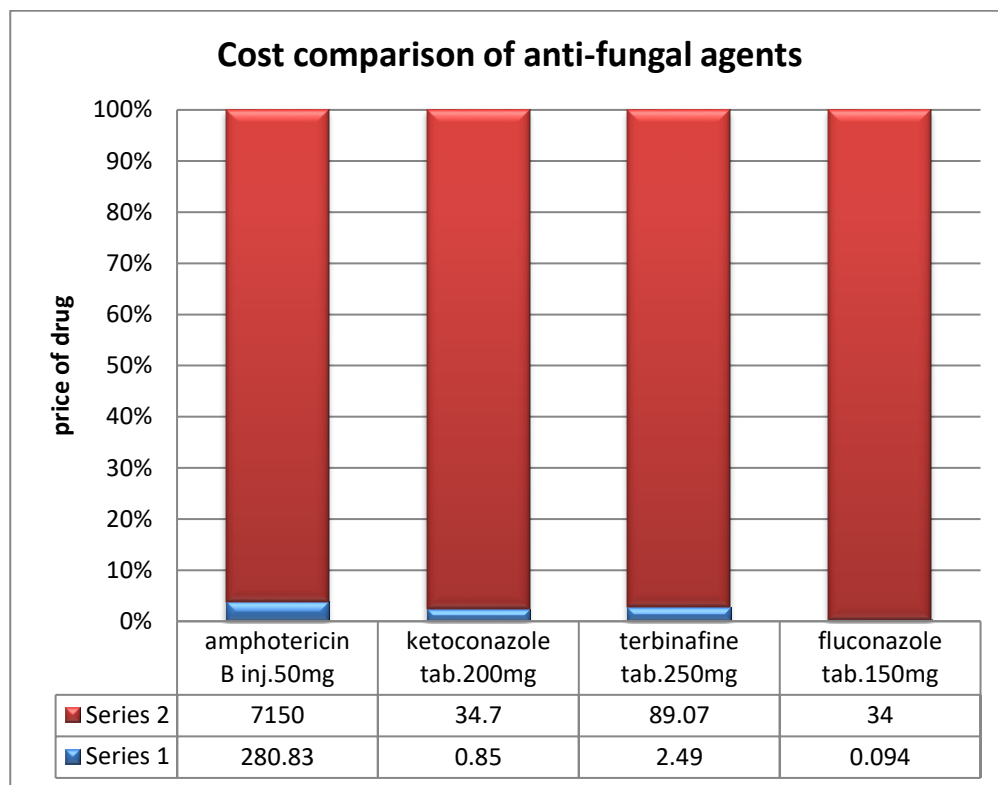


FIGURE 02: ELUCIDATES THE COST SAVING % OF DIFFERENT ANTI-FUNGAL AGENTS.

Anti Malarial agents :

Upto 82.68% cost could be saved on Arteether Inj.150mg (3*2ml) by prescribing the low cost alternative brand available instead of the highest priced brand. Likewise , 78.14% on Artesunate Tab.50mg and 72.19% on Chloroquine Inj.64.5mg/ml(5ml vial) could be saved by substituting the highest priced brands with their low priced alternative brands.

The results obtained are evident that the cost of prescription could be reduced to an extent in the health care system by substituting the highest priced brands with the alternative lowest priced brands available.

CONCLUSION

A maximum of 99.72% and a minimum of 01.87% cost could be saved by prescribing the lowest cost brands available instead of highest priced brand as per the results obtained in the study. This study shows a clear cut evidence for lowering the cost of prescription and thus making it affordable for the patients with limited income. Application of these results may surely incur accessibility of medicines for those vulnerable in society. Thus diminishes the economic burden on patients, physicians, hospitals, health-care systems, and society as a whole.

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