

AN EVALUATION OF INDIAN MEDICAL DEVICE INDUSTRY'S EXPOSURE TO PRICE CONTROL REGULATION

A Thesis

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Submitted by

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**SCHOOL OF PHARMACEUTICAL
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DECLARATION

I hereby declare that I worked directly under the direction of Dr. Saurabh Kumar Banerjee, Dean & Associate Professor, School of Pharmaceutical Management Indian Institute of Health Management Research (IIHMR) university, Jaipur, India, on the current work contained in this thesis, "An evaluation of Indian medical device industry's exposure to price control regulation." This work has not been submitted to another university or institution for a degree or diploma, nor will it be submitted in full to another organisation for a commercial purpose.

Date: June....., 2023

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CERTIFICATE

This is to certify that the work entitled, **“An evaluation of Indian medical device industry's exposure to price control regulation”** has been carried out by Rohit Yadav under my direction and supervision.

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Rohit Yadav

List of Abbreviations:

Abbreviation	Full Form
AUC	Appropriate Use Criteria
CDSCO	Central Drugs Standard Control Organization
CLA	Central Licensing Authority
DCGI	Drugs Controller General of India
DES	Drug Eluting Stent
DGHS	Directorate General of Health Services
DoP	Department of Pharmaceuticals
DPCO	Drugs (Prices Control) Order
DTAB	Drugs Technical Advisory Board
FDI	Foreign Direct Investment
GHTF	Global Harmonisation Task Force
GMP	Good Manufacturing Practices
IUD	Intra Uterine Device
IVDs	In Vitro Diagnostic Medical Devices
MDR	Medical Devices Rules
MNC	Multinational Corporation
MoH&FW	Ministry of Health and Family Welfare
MRP	Maximum Retail Price
NCDs	Non-Communicable Diseases
NLEM	National List of Essential Medicine
NPPA	National Pharmaceutical Pricing Authority
NRA	National Regulatory Authority
PCI	Percutaneous Coronary Interventions
PTD	Price-to-Distributor
PTR	Price-to-Retailer
SKUs	Stock Keeping Units
SLA	State Licensing Authority
SMEs	Small and Medium enterprises
TMR	Trade Margin Rationalisation
WHO	World Health Organization

EXECUTIVE SUMMARY

A wide variety of medical diseases can be treated and diagnosed with the use of medical devices, which are crucial to providing patients with complete healthcare. The market for medical equipment has grown as a result of the increased demand this has generated.

The Indian medical device market, which had a market value of US\$10.36 billion in 2020 and is expected to grow at a CAGR of 37% to reach US\$50 billion by 2025, is one of the top 20 medical device markets globally. India's medical device market is a multi-product one, offering anything from disposable gloves and needles to sophisticated equipment like CT scans and robotic surgery devices. However, import dependency on medical equipment was found to be between 75 and 80 percent in the year 2019-2020 for the Indian medical devices industry.

There are just about 10% of Indians who have any kind of social or voluntary health insurance. Due to the high out-of-pocket costs for healthcare and medications, more than half of Indian household's experience poverty each year as a result of healthcare expenses.

The Indian government has tightened healthcare regulations, notably price regulation for medical devices, in response to expanding demand, heavy import dependence, and high out-of-pocket healthcare costs. Price regulation is the practise of setting legal limits on the minimum and maximum prices that can be charged on the market. According to the 2017 Medical Devices Rules, India's National Pharmaceutical Pricing Authority (NPPA) is in charge of regulating medical device prices.

Before the Ministry of Health and Family Welfare's announcement on February 11, 2020, which mandated that all medical devices supplied in India be regulated as pharmaceuticals, only those medical devices that the government occasionally declared were subject to pricing controls. As a result, there were only 37 notified categories of medical equipment that were subject to price restriction prior to 1 April 2020. Nevertheless, all medical devices are now subject to the same price control regulations as medications thanks to the notification that was released on February 11, 2020. Furthermore, NPPA has regulated the prices of 6 medical devices (Blood Pressure Monitoring Device, Digital Thermometer, Glucometer, Nebulizer, Oxygen Concentrator, and Pulse Oximeter) through the trade margin rationalization approach by capping their trade margin at 70% in 2020. This was done by exercising its authority under the provisions of Paragraph 19 of the DPCO. Additionally, throughout time, it has

additional 6 medical devices (condom, hormonal IUD, copper-containing IUD, drug-eluting stent, drug-eluting stent, drug-eluting stent, and orthopaedic knee implants) have fixed ceiling costs.

These price controls aim to enhance access to inexpensive healthcare and rein in healthcare companies' greed for profit. However, the application of price regulation has an impact on businesses' profitability and occasionally results in some businesses leaving the market.

The objective of this study is to assess the impact of price control regulation on medical devices industry in India. The study evaluates the impact of trade margin rationalisation and price capping on the prices of medical devices in India to determine its effectiveness in making medical devices more affordable. Prices of 8 medical devices (Blood Pressure Monitoring Device, Digital Thermometer, Glucometer, Nebulizer, Pulse Oximeter, Condom, Hormonal IUD, and IUD Containing Copper) and their 1012 (969+112) brands before and after price control were analysed in a two part study to calculate the percentage reduction in their prices as a result of price control. The study also determines the interbrand variability between the highest and lowest priced brands of the same medical device. Another objective of the study was to evaluate the impact of price control on the medical devices firms and to compare the impact between Indian and Multinational companies on the basis of the number of brands affected and percentage price reduction in them. At last, the Part III of the study compares the changes in price of Drug Eluting Stents (DES) with the changes in its usage for the period 2016-2020 to determine how price capping of DES has impacted its usage.

For the purpose of analysis data was collected from appendix to the “office memorandums” and “working sheets” issued by NPPA used respectively for notifying and calculating the ceiling price/ retail price of the formulations under the Drugs (Prices Control) Order (DPCO, 2013) from the NPPA Official website. Other sources of data used were the Gazette notifications issued by the government, research articles from reliable sources and published news articles.

The analysis was limited by the absence of financial information needed to evaluate how price control legislation will affect the profitability of medical device producers and importers as well as the accessibility of medical devices in India. There is currently no trustworthy source of financial data accessible. The study allows room for further investigation in this area once the financial data is made publicly available.

The results of the study indicated that both the price control approaches, trade margin rationalisation and price capping, were effective in reducing the prices of medical devices in the immediate term. However, its effectiveness in the longer term could not be certain as other studies in this context have reported that price control has led to increase in the prices in the longer term. The study observed that, although, price control was able to reduce the prices of medical devices it was not able to impact the interbrand price variability between the highest and the lowest priced brands. Interbrand price variability among medical devices was found to be as high as 100000% and ranged 198982%-253% for the 8 medical devices included in part I and II of the study. The study found that both Indian and MNCs were affected by price control, with 80-90% of their brands reporting a downward revision in their prices as a result of price control.

By observing the price distribution of medical devices after price capping, it was observed that price capping led to price reduction of only a small percentage of brands (only 38 brands out of 112 brands included in part II of the study reported price reduction) while it left scope for a majority of brands to increase prices to the level of price cap. For 74 brands out of the 112 brands included in Part II of the study, the Price-to-Retailer (PTR) was found to be less than the ceiling price.

Part III of the study concluded that after the price capping of DES in 2017, the stent usage has increased for the years 2017, 2018, 2019, and 2021. A decrease in usage was observed in the year 2020 which could be attributed to the COVID-19 pandemic in which most catheterisation labs were under lockdown.

The study recommends NPPA to conduct re-assessment of the current pricing policy and its implementation and extend price control to other life-saving medical devices.

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CHAPTER – 1

INTRODUCTION

CHAPTER 1: INTRODUCTION

1.1 Drugs (Prices Control) Order, 2013

The Drugs (Prices Control) Order, 2013, is an order published in May 2013 under Section 3 of the Essential Commodities Act, 1955, by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilisers, Government of India. The Drugs (Prices Control Order), 1995 has been amended.

The National Pharmaceutical Pricing Authority (NPPA) is given authority under the DPCO 2013 to control prices for the 348 essential medications included on the National List of Essential Medicines (NLEM). The DPCO 1995 featured 74 bulk medications before the 2013 regime, and drug prices were set based on the manufacturers' acknowledged manufacturing costs.

1.1.1 Main features of DPCO, 2013

1. The 348 essential medications and their 652 formulations were put under price control by the decree.
2. The new plan used a market-based pricing structure as opposed to the previously recommended cost-plus scheme. The maximum price would be established by averaging the costs of all drug brands with a market share of 1% or more.

1.1.2 Objectives of DPCO, 2013

1. To increase the number of drug formulations under price control from 74 to 652, and control their prices.
2. To regulate and control the prices of 348 essential medicines covered under the National List of Essential Medicines (NLEM) 2011.
3. To ensure availability of essential medicine of good quality at the reasonable prices.
4. To promote the rational use of the drugs in the country to enhance cost-effective production with economic sizes.
5. To control the manufacturing of existing drugs, the firms cannot cease production without prior permission from NPPA.
6. To allow the manufacturers to extend their maximum retail price annually.

1.2 National Pharmaceutical Pricing Authority (NPPA)

On August 29, 1997, the National Pharmaceutical Pricing Authority (NPPA), an attached office of the Department of Pharmaceuticals (DoP), Ministry of Chemicals and Fertilisers, was founded as an independent regulator for drug pricing and to ensure the accessibility and availability of medicines at fair prices. NPPA also enforces the National Pharmaceutical Pricing Policy of 2012, which was made public by the Department of Pharmaceuticals (DoP). The NPPA establishes a ceiling price for all pharmaceuticals listed in Schedule-I of the DPCO and keeps track of annual price increases for both scheduled and unscheduled drugs.

1.2.1 Functions of NPPA

1. To carry out and enforce the Drugs (Prices Control) Order's provisions in accordance with the authority granted to it.
2. To handle all legal issues resulting from the Authority's judgements.
3. To keep an eye on pharmaceutical availability, spot any shortages, and address them.
4. To gather and manage data on production, imports and exports, individual company market shares, business profitability, etc., for bulk medications and formulations.
5. To carry out and/or sponsor pertinent studies about the cost of pharmaceuticals and/or drugs.
6. To hire/recruit Authority officers and other employees in accordance with the policies and guidelines established by the government.
7. To provide the Central Government with advice on alterations or amendments to the drug policy.
8. To provide the Central Government with support in parliamentary inquiries over drug prices.

1.3 Calculation of Ceiling Price of a Scheduled Formulation

According to DPCO 2013, NPPA uses a two-step process to determine the ceiling price of a scheduled formulation with the specified strengths and dosages as defined under the first schedule:

Step 1 - First, the scheduled formulation's average price to retailers, or P(s), must be determined.:

Average Price to Retailer, P(s), is calculated as follows: (Total number of such brands and generic versions of the medicine having market shares greater than or equal to one percent) / (Sum of prices to retailers of all such brands and generic versions of the medicine)

Step 2 - Thereafter, the ceiling price of the scheduled formulation i.e. P(c) shall be calculated as below:

P(c) = P(s) × (1+M/100), where

P(s) = Average Price to Retailer

M = % Margin to retailer =16%

Ceiling price of a scheduled formulation in case of no reduction in price due to absence of competition is calculated otherwise:

Step1 - First the Average Price to Retailer of such scheduled formulation i.e. P(s) shall be calculated as under:

$P(s) = P_m \times \{1 - (P_{i1} + P_{i2} + \dots) / (N \times 100)\}$ Where,

P_m = Price to Retailer of highest priced scheduled formulation under consideration.

P_i = % reduction in Average Price to Retailer of other strengths and dosage forms in the list of schedule formulations w.r.t the highest priced formulation taken for calculating the average price to retailer of such strengths and dosage forms.

N = Number of such other strengths or dosage forms or both in the list of schedule formulations

Step 2 - Thereafter, the ceiling price of the scheduled formulation i.e. P(c) shall be calculated as under:

P(c) = P(s) × (1+M/100), where

P(s) = Average Price to Retailer

M = % Margin to retailer = 16%

This formula is used in another three cases:

1. When there is no decrease in the average price paid by the retailer in relation to the prices determined by the schedule formulation.

2. If the various varieties of the scheduled formulation aren't listed among the costs for controlled substances.
3. If the planned formulation is listed among the medications with controlled prices.

1.4 Pricing of Non-Scheduled Formulation

The NPPA is also permitted to keep an eye on the maximum retail prices (MRP) of all medications, including non-scheduled formulations, and to make sure that no manufacturer raises a medication's MRP by more than 10% over the MRP from the previous 12 months. Where the rise exceeds 10% of the maximum retail price, it has the authority to lower it to 10%. The NPPA is empowered to fix pricing for Scheduled Formulations in addition to regulating prices for Schedule The maker must deposit the overcharged amount plus interest since the date of the price increase in addition to paying the penalty.

1.5 Medical Device Regulation in India

The framework for regulating medical devices in India is provided by the Medical Devices Rules, 2017 and the Medical Device (Amendment) Rules, 2020. The 1940 Drugs and Cosmetics Act governs the standard and security of medical equipment in India. As of April 1, 2020, the Drugs and Cosmetics Act, 1940 will regulate all medical devices supplied in India as "drugs."

There are three regulatory authorities:

- (i) (i) Central Drugs Standards Control Organisation (CDSCO): This organisation serves as the primary regulating agency for drugs and medical equipment.
- (ii) The key representative under CDSCO is the Drug Controller General of India (DCGI).
- (iii) The 1940 Drugs and Cosmetics Act regulates the production, importation, sale, and distribution of medical equipment.

The Central Licencing Authority (CLA) and State Licencing Authority (SLA), both of which fall under the Central Drug Standard Control Organisation (CDSCO), are in charge of registering and licencing medical devices for import, manufacture, distribution, and sale in India.

1.6 Medical Device Rules, 2017

The Ministry of Health and Family Welfare published the Medical Devices Rules, 2017 on January 31, 2017, and they set the country's standards for clinical research, manufacturing, importation, marketing, and distribution of medical devices. Central Drugs Standard Control Organisation (CDSCO) is the National Regulatory Authority (NRA) in charge of carrying out the 2017 Medical Devices Rules. The Rules are designed to assist Make in India and provide comprehensive legislation for the regulation of medical devices. They adhere to the Global Harmonisation Task Force (GHTF) framework. Only the devices that are mentioned on the government's notification list are covered by these regulations.

1.6.1 Salient Features of MDR 2017

- (i) Device classification based on risk
- (ii) Regulatory specifications and the proper licencing authority based on the device's risk class.
- (iii) Using the web portal known as "SUGAM," there is a single window for registration, review, and submission.
- (iv) Manufacturing and import licences are now valid indefinitely or until they are revoked.
- (v) An ISO 13485-compliant quality management system; (vi) Manufacturer provisions according to the "Essential Principles of Safety and Performance"
- (vi) Specific regulations for Clinical Investigation of experimental medical devices (i.e., new devices) that are consistent with worldwide standards.
- (vii) A provision to designate or construct medical device testing facilities under Central Government control to ensure compliance with quality standards.

1.6.2 Medical Device Definition as per MDR 2017

Acc.to MDR 2017, “medical device” means,-

- (i) “Substances used for in vitro diagnosis and surgical dressings, surgical bandages, surgical staples, surgical sutures, ligatures, blood and blood component collection bag with or without anticoagulant
- (ii) substances including mechanical contraceptives (condoms, intrauterine devices, tubal rings), disinfectants and insecticides,
- (iii) devices notified from time to time”

As per MDR 2017, substances used for in vitro diagnosis are referred to as “in vitro diagnostic medical device (IVDs)”.

1.6.3 Risk Based Classification of Medical Devices

As per MDR 2017 medical devices are classified into four risk classes based on associated risks.

Table 1: Risk based classification of medical devices.

Risk Class	Risk Level	Number of Devices
A	Low Risk	6
B	Low Moderate Risk	147
C	Moderate High Risk	124
D	High Risk	70
Grand Total		347

Refer to annexure 1 for the list of medical devices with their risk class.

1.6.4 Medical Devices and IVDs Notified as ‘Drugs’ under MDR 2017

As per Medical Devices Rules 2017, only the medical devices notified by CDSCO are regulated as ‘drugs’ under the Drugs and Cosmetics Act, 1940.

Table 2: List of medical devices notified by CDSCO as drugs as per MDR 2017

S.No.	Notified Medical Devices
1	Disposable Hypodermic Syringes
2	Disposable Hypodermic needles
3	Disposable Perfusion sets
4	Substances used for in vitro diagnosis including Blood Grouping Sera
5	Cardiac Stents
6	Drug-Eluting Stents
7	Catheters
8	Intra Ocular Lenses
9	I.V. Cannulae
10	Bone Cement
11	Heart Valves
12	Scalp Vein Set
13	Orthopaedic Implants
14	Internal Prosthetic replacements
15	Ablation Devices

16	Nebulizer
17	Blood Pressure Monitoring Devices
18	Digital Thermometer
19	Glucometer
20	All implantable medical devices Equipment
21	CT Scan Equipment
22	MRI Equipment
23	Defibrillators
24	PET Equipment
25	X-Ray Machine
26	Dialysis Machine
27	Bone marrow cell separator
28	Disinfectants and insecticide specified in Medical Devices Rules, 2017
29	Ultrasound equipment

Source: Gazette of India (11 February, 2020), Registration of Certain Medical Devices, Notification G.S.R.102 (E), Ministry of Health and Family Welfare, Government of India. Accessed: 6 June, 2022.

1.6.5 Implications of Medical Device Notification

- (i) Notified medical devices are regulated as ‘drugs’ under the Drugs and Cosmetics Act, 1940.
- (ii) Mandatory registration required for the manufacture, import, and sales of notified medical devices.
- (iii) Notified medical devices falls under the ambit of price regulations as per Drugs and Cosmetics Act, 1940.

1.7 Medical Device (Amendment) Rules, 2020

The Medical Devices (Amendment) Rules, 2020, an amendment to the Medical Devices Rules, 2017 that took effect on April 1, 2020, and a new definition of medical devices were both published by the Ministry of Health and Family Welfare (MoH&FW) on February 11, 2020, in the Gazette of India. The Ministry wants both of these notifications to have a cumulative effect to ensuring that all medical devices meet defined quality and efficacy requirements and for mandatory registration of all medical devices. This intention was reached after consultation with the Drugs Technical Advisory Board (DTAB).

With the modification, all medical devices supplied in India are now subject to the same laws as pharmaceuticals, namely the pharmaceuticals and Cosmetics Act of 1940. Only 37 kinds of medical gadgets were classified as medications in India prior to the modification..

1.7.1 New Medical Device Definition

Beginning on April 1, 2020, any medical devices that meet the following criteria will be subject to the 1940 Drugs and Cosmetics Act's "drug" regulations.:

“All devices including an instrument, apparatus, appliance, implant, material or other article, whether used alone or in combination, including a software or an accessory, intended by its manufacturer to be used specially for human beings or animals which does not achieve the primary intended action in or on human body or animals by any pharmacological or immunological or metabolic means, but which may assist in its intended function by such means for one or more of the specific purposes of —

- (i) diagnosis, prevention, monitoring, treatment or alleviation of any disease or disorder.
- (ii) diagnosis, monitoring, treatment, alleviation or assistance for any injury or disability.
- (iii) investigation, replacement or modification or support of the anatomy or of a physiological process.
- (iv) supporting or sustaining life.
- (v) disinfection of medical devices; and
- (vi) control of conception.”

This definition placed all medical equipment sold in India under the control of the 1940 Drugs and Cosmetics Act.

1.7.2 Changes Introduced by Medical Device (Amendment) Rules, 2020

The introduction of a new chapter for registration of medical equipment by their respective producers and importers is the first significant modification. The second is an exemption from the registration requirement for 37 categories of currently used medical equipment that are regulated or notifiable.

1.7.2.1 Requirement of Registration

Before October 1, 2021, manufacturers and importers of medical devices must compulsorily register those goods with the Drugs Controller General of India (DCGI).

In order to receive registration requests, the DCGI will start accepting them on April 1, 2020, through a specialist online system called the "Online System for Medical Devices" (created by

the Central Drugs Standard Control Organisation) (or starting at the time the online application site is open to applications).

The registration procedure is much simpler, and it shouldn't be mistaken for a formal marketing authorization.

Upon submission of the following information, any importer or manufacturer of a Newly Notified Medical Device will be entitled to receive registration:

1. The name of the business, firm, or other entity
2. The brand and location of the manufacturing facility (only relevant for gadgets built in India)
3. Requirements and standards for medical devices (applied exclusively to imported devices)
4. Information concerning medical devices, including generic name, model number, intended use, class of medical devices, construction material, measurements (if applicable), shelf life, sterility or non-sterility status, and brand name only if registered under Indian trademark law.
5. A National Accreditation Board for Certification Bodies or International Accreditation Forum-recognized certificate of conformance with the ISO 13485 standard for such medical equipment
6. The origin country's free sale certificate (only valid for imported equipment))
7. A properly executed statement confirming the veracity and authenticity of the applicant's information.

By October 1, 2021, if an importer or manufacturer has not obtained registration for their medical equipment, they will not be permitted to advertise or sell that product in India.

1.7.2.2 Exemption for Devices Notified before February 11, 2020

The importer or manufacturer of a medical device that falls under one of the 37 categories of medical devices that were controlled or warned about prior to February 11, 2020 is exempt from having to register their medical device and may continue to conduct business using the licence issued by the appropriate licencing authority.

1.7.2.3 Relaxation to Obtain Registration and Licenses

The government has allowed the medical device sector time to become accustomed to the new regulatory environment and to obtain ISO 13485 certification.

The government has loosened the requirements for medical devices and other types of medical devices to be registered and authorised for the upcoming term.:

- (i) **April 1, 2020 to October 1, 2021** – Manufacturing, importing, distributing, or selling newly notified medical devices would necessitate voluntary registration..
- (ii) **After October 1, 2021** – To import, manufacture, distribute, or sell such medical devices, mandatory registration would be necessary, but no licence would be needed..
- (iii) **Before August 11, 2022** – Class A (low risk) or Class B (medium risk) medical device manufacturing, import, distribution, and sale would all require a licence; class C or class D medical device manufacturing, import, distribution, and sale would not..
- (iv) **Before August 11, 2023** – Class C (moderately high risk) and Class D (high risk) medical device production, distribution, and sale would all require licenses.

1.8 Key Developments in Medical Devices Regulations in India

Table 3: Key developments in medical devices regulation in India

Date	Event
November 13, 1982	The Drugs and Cosmetics Act (DCA) was changed to include medical devices that the government may occasionally notify as "drugs" from time to time.
March 17, 1989	Medical supplies that received notice included disposable hypodermic syringes, disposable hypodermic needles, and disposable perfusion sets..
February 22, 1994	Notification of regulations outlining the specifications for the manufacturing space needed to produce medical devices.
March 20, 2002	Following notification of the in vitro diagnostic medical device: substances used in in vitro diagnostics, such as sera for blood groups.
January 20, 2005	It was made known what procedures and regulations needed to be followed in order to conduct clinical trials and acquire authorization to import or manufacture new medications. Since medical devices are categorised as "drugs," they are technically governed by these regulations as well..
October 06, 2005	The 10 sterile medical devices that were warned about include cardiac stents, drug-eluting stents, catheters, intraocular lenses, I.V. cannulae, bone cement, heart valves, scalp vein sets, orthopaedic implants, and internal prosthetic replacements. As of 2005, there were just 14 officially recognised medical gadgets in India..
October 07, 2005	The Drugs Controller of India (DCGI) was given authority over the sale, production, and import of the 10 notified devices, and import regulations for these 10 devices went into force on March 1st, 2006.
2006	Draft of the "Medical Devices Regulation Bill, 2006" was released by the Science and Technology Ministry for comments. This Bill proposed

	putting in place a Medical Device Regulatory Authority of India and classifying medical devices based on risk.
October 31, 2012	A document providing instructions for the import of medical equipment was published by the Central Drugs Standard Control Organisation (CDSCO).
January 31, 2017	The Medical Device Rules, 2017 (MDR, 2017) were notified by the Health Ministry.
November 07, 2017	The DCGI published a list of 247 devices, categorising them according to danger and describing what they are used for..
October 18, 2019	The DCGI published a list of 247 devices, categorising them according to danger and describing what they are used for. Draught notice that outlined the process for registering certain medical devices, whether they were imported or made locally, was published. 37 medical devices were mentioned as needing to be registered with CDSCO using the online portal.
December 03, 2018	Following medical devices were notified: Nebulizer, Blood Pressure Monitoring Devices, Digital Thermometer, and Glucometer.
December 18, 2019	At a stakeholder conference for its drafted Medical Devices (Safety, Effectiveness, and Innovation) Bill, 2019, the Directorate General of Health Services (DGHS) proposed creating the Medical Devices Administration to work with the CDSCO..
February 11, 2020	The expanded definition of "drugs" under Section 3(b) by the Ministry of Health and Family Welfare now includes any medical devices marketed and sold in India. The expanded definition included hardware and software.

1.9 Medical Devices Price Control Regulation in India

The term of "drugs" was enlarged by the Ministry of Health and Family Welfare on February 11, 2020, bringing all medical devices marketed in India under the same price regulation as pharmaceuticals. Only 37 categories of registered medical devices were subject to price control regulation under the 1940 Drugs and Cosmetics Act prior to the notification released on February 11, 2020..

According to the Drugs (Price Control) Order, 2013, the National Pharmaceutical Pricing Authority (NPPA) keeps an eye on and regulates medical device pricing.

NPPA uses two different approaches for controlling the prices of medical devices:

- (i) Ceiling price fixation (price capping)
- (ii) Trade Margin Rationalisation (TMR)

1.9.1 Trade Margins and Trade Margin Rationalisation

According to the NITI Aayog consultation paper "Rationalisation of trade margins in medical devices - a consultation document," "trade margin is the difference between price to patients.

(i.e., the maximum retail price) and the price at which the manufacturers sell the drugs/devices to distributors (i.e., the price to trade)”

$$\text{Trade Margin} = \text{Maximum Retail Price} - \text{Price to Trade}$$

Trade Margin Rationalisation (TMR) entails capping the trade margin and calculating the medical device's Maximum Retail Price (MRP) using the capped trade margin..

NPPA uses the following formula for calculating the MRP under the trade margin rationalisation approach:

$$\text{Maximum Retail Price} = \text{Price to Distributor (PTD)} + (\text{PTD} \times \text{TM}) + \text{Applicable GST}$$

where, PTD = Price-to-Distributor, GST = General Sales Tax, TM = Trade Margin

1.9.2 Key Developments in Medical Devices Price Regulations in India

Table 4: Key developments in medical devices price regulations in India

Date	Event
November 05, 2013	Ceiling price fixation of Condoms at ₹ 6.56 per unit
September 15, 2014	Ceiling price fixation of IUD Containing Copper at ₹ 351.41 per unit
December 10, 2014	Ceiling price fixation of Hormone Releasing IUDs at ₹ 455.01 per unit
Till 2017	37 categories of medical devices notified as drugs and brought under the price control regulation
February 13, 2017	Ceiling price fixation of Bare Metal Stents and Drug Eluting Stents at ₹ 7260 and ₹ 29600 per unit respectively
August 16, 2017	Ceiling price fixation of Orthopaedic Knee Implants
February 11, 2021	All medical devices notified as drugs and brought under the price control regulation
June 3, 2021	Trade margin rationalisation of Oxygen Concentrators at 70%
July 13, 2021	Trade margin rationalisation of 5 medical devices at 70%: Blood Pressure Monitoring Device, Digital Thermometer, Glucometer, Nebulizer, and Pulse Oximeter

1.10 Overview of Medical Devices Industry in India

The top 20 medical device industries worldwide are all located in India. The market for medical devices in India was valued at \$10.36 billion in 2020, and by 2025, it was projected to increase at a CAGR of 37% to reach \$50 billion.

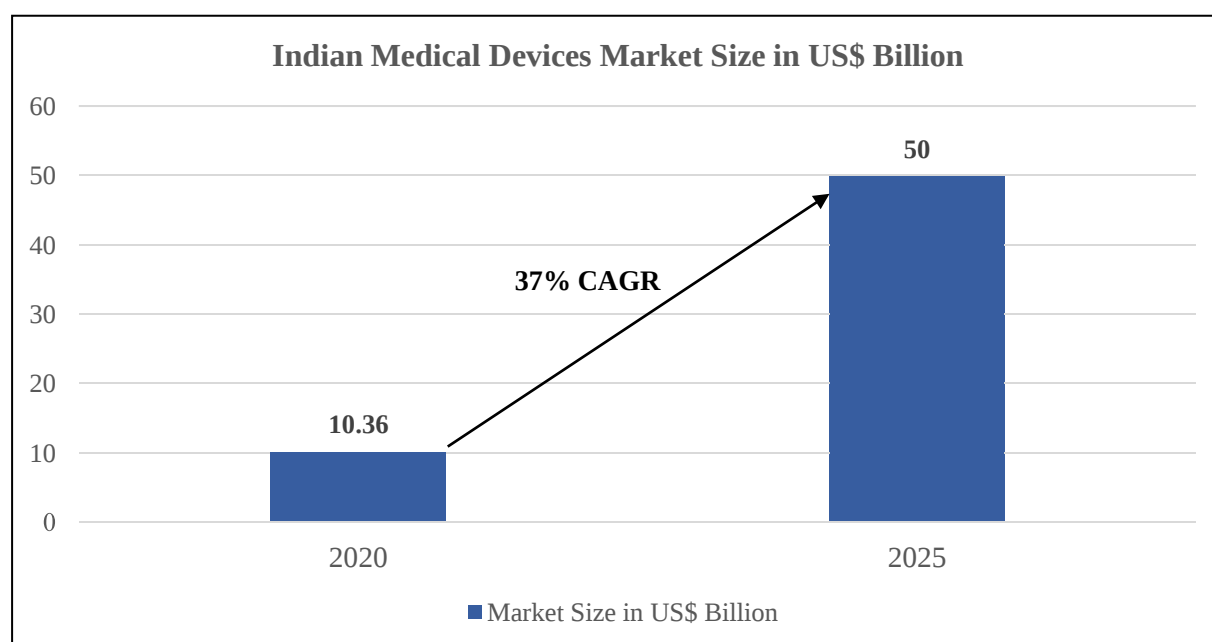
Small and medium-sized businesses (SMEs) and major multinational organisations are both represented in India's medical device industry, which is growing at an unprecedented rate.

India has 750–800 domestic medical device manufacturers with an average investment of US\$ 2.3–2.7 million and an average revenue of US\$ 6.2–6.9 million.

The leading suppliers of medical devices in the Indian market are:

1. Phillips
2. Wipro GE Healthcare
3. Medtronic
4. Johnson & Johnson
5. Becton Dickinson
6. Abbott
7. Hindustan Syringes & Medical Devices

Figure 1: Indian medical devices market size in US\$ billion



Source: *Medical Devices Industry in India – Market Share, Reports, Growth & Scope (2020)*. India Brand Equity Foundation (IBEF). Accessed: 06 June, 2022. <https://www.ibef.org/industry/medical-devices>

Import dependency on medical devices was 75-80% and stood at US\$ 5.6 billion in 2019-20. In 2019-20, exports were US\$ 2.51 billion and were predicted to reach US\$ 10 billion by 2025.

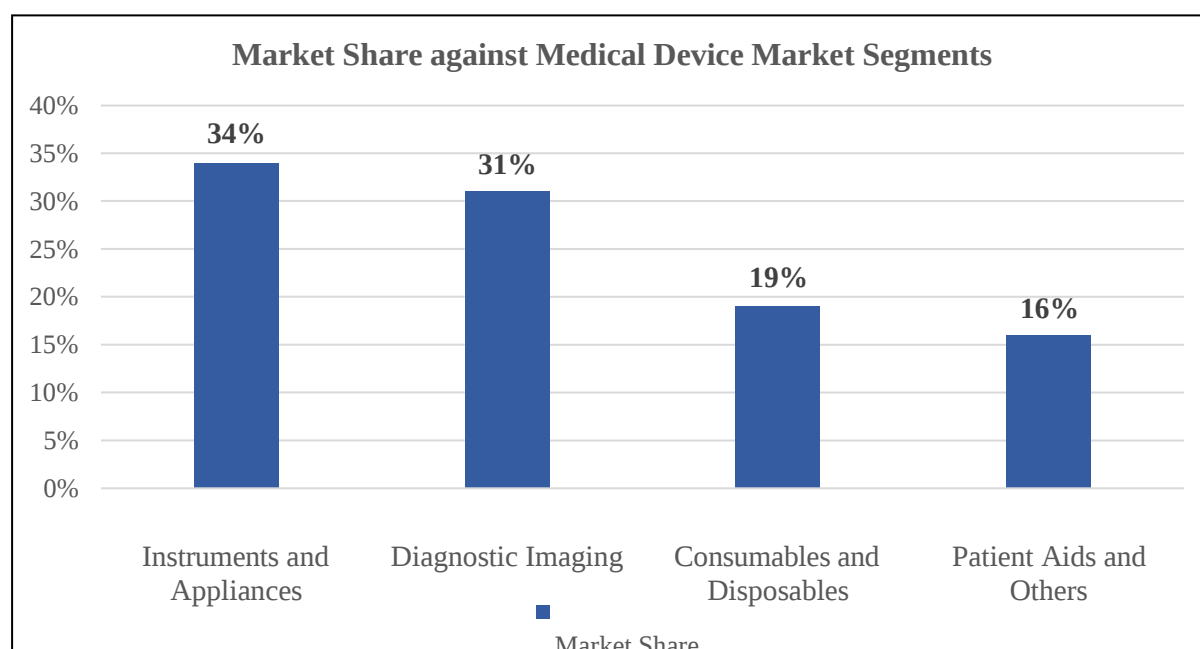
The manufacturing hub of medical devices in India are Haryana, Telangana, Karnataka, Gujarat, and Tamil Nadu. The key export countries of medical devices are the US, China, Brazil, France, Germany, and Iran.

1.10.1 Market Segments

Medical devices market is segregated into four major segments:

- (i) Stents, syringes, needles, catheters, suturing supplies, bandages, and dressings are among the consumables and disposables.
- (ii) Diagnostic Imaging, which includes equipment for radiation, electrodiagnostic testing, and imaging parts and accessories.
- (iii) Tools and supplies, such as surgical and non-surgical equipment, as well as other tools and supplies
- (iv) Patient Aids and Other Items, such as Pacemakers, Prosthetics and Orthotics, and Hearing Aids.

Figure 2: Medical devices market segment by their market shares



Source: Manu, M., & Anand, G. (2022). *A review of medical device regulations in India, comparison with European Union and way-ahead. Perspectives in Clinical Research.*

1.10.2 Government Initiatives

The Government of India has started a number of efforts to support the medical device industry, putting a strong emphasis on production and R&D.:

- (i) 2017 Medical Devices Rules (MDR) Clinical research, medical device production, importation, sales, and distribution are all governed by the Medical Devices Rules (MDR), 2017 regulations. According to international regulations, the devices are divided into 4 groups..
- (ii) Production Linked Incentive Schemes: The government has introduced Production Linked Incentive Schemes for medical devices for 4 main target categories and in-vitro diagnostics to increase domestic production.
- (iii) The Government of India has approved the establishment of 4 medical device parks to provide shared infrastructural facilities, build a strong ecosystem for the manufacturing of medical devices, and lower manufacturing costs.
- (iv) 100% of FDI is permitted using the automatic route for both brownfield and greenfield investments, according to the FDI policy.

1.10.3 Growth Drivers

- (i) Increasing Population: By 2028, India's population is expected to reach 1.45 billion, making it the most populous country in the world.
- (ii) Life Expectancy: By 2025, India's life expectancy, which is currently 67.5 years, should reach 70 years.
- (iii) Shifting Disease Burden: In India, non-communicable diseases (NCDs) are responsible for 60% of all fatalities and 50% of the disease burden.
- (iv) Changing Preferences: Increasing lifestyle diseases, shifting attitudes towards preventative healthcare, & growing health awareness.
- (v) Growing Middle Class: Over the next ten years, 73 million Indian households are expected to enter the middle class, increasing their purchasing power, including in the area of medical devices.
- (vi) Rising disposable income: By 2026, 8% of Indians will earn more than \$12,000.
- (vii) Health Insurance: Around 20% of Indians are covered by health insurance. With rising affluence and expanding urbanization, it is anticipated that this number will rise.
- (viii) Increase in Medical Tourism: Due to India's comparatively affordable healthcare, it is expanding by 22-25%. Over US\$ 2 billion goes towards the medical tourism industry in India. A growth in medical tourism has increased demand for healthcare and medical equipment.

- (ix) Infrastructure Development: Four medical device parks are now being planned in India.
- (x) Policy Support & Incentives: Greenfield & Brownfield projects are 100% FDI permitted, there are significantly less entry obstacles than in other sectors, and there is a thriving and diverse start-up ecosystem.

1.10.4 Impact of COVID-19

The COVID-19 pandemic presented both possibilities and problems for the medical device industry. A few difficulties include a negative effect on financial expectations, supply chain disruption, operations, and crisis response strategies. With the mounting COVID-19 instances and constrained capacity, the industry in India was compelled to move quickly forward to address the situation, which put manufacturers to the test. These hiccups brought to light the dangers of this industry's over-reliance on imports.

During the COVID-19 pandemic, the Indian medical devices industry faced an increased demand for certain medical devices:

Table 5: List of medical devices with increased demand during COVID-19 pandemic

Type of equipment's	Medical Device name
Personal protective equipment	Respirators
	Surgical Masks (2-ply; 3-ply; N-95 masks etc.)
	Face shield
	Gloves
	Protective goggles
	Surgical gowns
Medical Equipment	Digital thermometer
	Pulse oximeter
	Glucometer
	Nebulizer
	Oxygen Concentrators
	Ventilators
	Blood Pressure Monitoring Device

Source: Saini, G., Budhwar, V., & Choudhary, M. (2022). Review on people's trust on home use medical devices during Covid-19 pandemic in India. *Health and Technology*, 12(2), 527–546.

Shortages of oxygen concentrators, PPE kits, and ventilators were also reported during the COVID-19.

However, the crisis also offered vast, previously untapped potential. For instance, COVID-19's constraints on treatment and patient transportation led to their adoption in even smaller healthcare facilities. Previously, advanced and complex medical equipment were exclusively employed in larger multi-specialty institutions.

Additionally, because of the virus's ability to spread, more patients chose to receive their medical care at home, which raised the need for at-home medical equipment.

The epidemic caused a number of new firms to begin operations in the nation. For instance, there were only 20 businesses producing 62 lakh PPE kits annually before COVID, but after a few of months, that number had increased to 140, with a capacity of 25.55 crores annually. Similar to how the number of producers of ventilators rose from 8 to 17, that of masks from 30 to 108, swabs from 0 to 5, sanitizers from 35 to 49, and RT PCR kits from 0 to 8.

CHAPTER – 2

REVIEW OF LITERATURE

CHAPTER 2: REVIEW OF LITERATURE

2.1 Balarajan, Y., Selvaraj, S., & Subramanian, S. (2011). *Health care and equity in India*. The Lancet, 377(9764), 505–515.

In their study titled "Health care and equity" (Lancet, 2011), Balarajan, Y., Selvaraj, and Subramanian, S. revealed that more than half of Indian households experience poverty as a result of healthcare costs, and the impact has been growing, forcing over 39 million Indians into poverty each year. This problem is made worse by high out-of-pocket medical expenses, which disproportionately burden private families and represent more than a third of total healthcare spending in India.

The study underlined the main obstacles to equity in finance, equity in service delivery, and equity in reducing financial risk in India. These included uneven resource distribution, a shortage of health-related human resources, access barriers to high-quality healthcare, high out-of-pocket costs, inflation in healthcare spending, and behavioral factors that influence demand for appropriate care.

The study reported that:

- (i) Only a little over 10% of Indians have any type of social or voluntary health insurance.
- (ii) In both rural and urban areas, out-of-pocket spending on health has risen over time as a percentage of household spending.
- (iii) Drug costs make up a larger part of out-of-pocket expenses for the poor compared to the non-poor, and drug expenditures have been rising over time.
- (iv) The current inadequacies in the efficiency and sufficiency of drug price management, pharmaceutical market regulation, and procurement and distribution processes create unequal access to reasonably priced, high-quality medications.

2.2 Das, S. (2014). *Premium condom market in India may collapse as drug pricing authority sets price cap of Rs 6.50*. The Economic Times.

A news article titled "The premium condom market in India is on the brink of collapse thanks to a drug pricing order that has set a blanket limit of Rs 6.50 per piece." (*The Economic Times*, 2014) summarized the aftermath of NPPA's decision to put ceiling price on condoms in India. Almost all condom manufacturer companies challenged the NPPA's decision with TTK

Protective Devices even moving to Madras High Court to challenge the decision. The article stated that post the decision, most marketing firms drastically reduced their promotional expenses. The article mentioned the statement of Ranju Mohan, Director of JK Ansell that “The impact of this regulation will put tremendous pressure on the industry as the consumer pricing in India is already one-fifth of the global pricing”.

The article also claimed that, according to industry estimates, a package of 12 high-quality condoms costs around \$7-9 in the United States, \$6-8 in Australia, and \$5-7 in Dubai. In India, premium condoms are priced between Rs 16 and Rs 20 a piece. The most expensive, Durex RealFeel, costs about Rs 50 per piece.

2.3 Soni, P., & Gupta, S. (2015). *Need for New Pharmacoeconomics Policy for Regulating Prices of Medical Devices In India. Value in Health, 18(7), A573.*

An article titled “Need for New Pharmacoeconomics Policy for Regulating Prices of Medical Devices in India” summarized the need for price regulations of medical devices in India. Two major reasons which calls for the need of a price regulation policy in India are the over dependency on imported products and the overpricing of medical devices to patients.

According to the study, the majority of the Indian medical equipment business, which is incredibly reliant on imports, is controlled by multinational corporations without any manufacturing facilities in India. The disposables (\$1.57 billion), consumables (\$0.83 billion), and surgical instruments (\$0.06 billion) markets rely on about 40-50% of imported goods, compared to the medical electronics (\$1.57 billion), hospital equipment (\$0.39 billion), implants (\$0.20 billion), and diagnostics (\$0.09 billion) categories.

According to the report, a higher reliance on imported goods and a lack of price controls in India led to doctors, hospitals, and retailers overcharging their patients for some medical gadgets by nearly three to four times. For instance, the Abbott Drug Eluting Stent (DES) was imported for \$640 and sold for \$2000, representing a markup of more than 250%, and the Medtronics stent was imported for \$485 and sold for \$2600, representing a markup of more than 200%.

2.4 Atal, Shubham & Deshmankar, B. & Nawaz, Syed. (2016). *Cost analysis of commonly used drugs under price control in India: Assessing the effect of drug price control order on brand price variation. 8. 315-321.*

The price variance among the main classes of the essential pharmaceuticals subject to price control was examined in a study titled "Assessing the Effect of Drug Price Control on Brand Variation". The study evaluated the unit prices of the many brands of the same drug that are now accessible and covered by DPCO using the most recent prices from the commercial drug directory. For the majority of formulations, there was a noticeable inter-brand price difference; prices varied by more than 100–500% from the average cost of medications like amlodipine, atorvastatin, diclofenac, etc. Out of the 60 formulas included in the analysis, 40 exhibited a price deviation of more than 50% from the average and 23 had a difference in price of more than 200% between the least expensive and most expensive products.

Despite price control, there is huge brand price variation observed leading to the impact on the patient's financial resources. Re-assessment of pricing policy is recommended, there is ample scope of reduction of ceiling price, expansion of NLEM list, strict adherence to GMP norms in drug manufacturing, and implementation of such quality norms is needed.

2.5 Nagarajan, R. (2017). *Profit on stents ranges from 270% to 1,000%. The Times of India.*

A news article titled “Profit on stents ranges from 270% to 1,000%” (*The Times of India*, 2017) stated that cardiac stents can cost 10 times over to patients as it moves from the manufacturer to the patient. The article stated that based on calculations by NPPA, the margins on cardiac stents ranged from 270% to 1000%. It further stated that of all the players, the margins charged by the hospital was found to be the highest at about 650%. However, not all hospitals charged such a high margin and it ranged from 11% to 650%.

2.6 Kaul, R. (2017). *Lawyer with a heart: Birender Sangwan’s fight to cap price of coronary stents. Hindustan Times.*

According to a news article titled "Lawyer with a heart: Birender Sangwan's fight to cap price of coronary stents" (Hindustan Times, 2017), advocate Birender Sangwan petitioned the Delhi High Court in 2014 for price regulation of the life-saving device after his family's friend was overcharged for a coronary stent by a private hospital. Sangwan's friend's brother had a heart attack in 2014, and a private hospital in Faridabad cost him 126,000 for a stent. There was no maximum selling price listed on the packaging that contained the stent. Sangwan consulted with other physicians, who informed him that since stent costs were not governed by the government, hospitals were allowed to set charges.

When the high court ordered the government to bring stents under NELM and implement pricing caps, the government first did nothing. Sangwan therefore filed a contempt petition against the government in 2016, which prompted the NPPA to launch an investigation that found stepwise price markups by wholesalers and hospitals. The National Pharmaceutical Pricing Authority (NPPA) finally publishes an order on February 13th, 2017, capping coronary stent pricing at 30,000, a reduction of roughly 85%.

2.7 Wadhera, P., Alexander, T., & Nallamothu, B. K. (2017). *India and the Coronary Stent Market*. Circulation, 135(20), 1879–1881.

Priya Wadhera et al. summed up the effects of price ceilings on Indian patients and the local market in their work titled "India and The Coronary Stent Market: Getting the Price Right." According to the report, a policy change that would impact the treatment of cardiovascular diseases in a nation with a rising burden of non-communicable disease was sparked by India's price cap on coronary stents..

Price capping of stents will ensure better pricing and greater access to the Indian patients, however, the impact on market supply will remain to be seen.

With international manufacturers leaving the market in reaction to the drastic price decrease, the new price regulations will also enable local stent makers to claim a larger share of the market.

2.8 Bhaskarabhatla, A. (2018). *How Effective Are the 2013 DPCO Regulations?. Regulating Pharmaceutical Prices in India*. India Studies in Business and Economics. Springer, Cham.

A study titled “How Effective Are the 2013 DPCO Regulations?” examined the whether the 2013 DPCO has been successful in making essential medicines more affordable. The findings of the study were:

- (i) “The Indian Pharmaceutical Market (IPM) is under the control of the 2013 DPCO at a decreasing rate: The market for unregulated medications doubled in size in 2016 from 40 billion to 80 billion rupees, while the sales of authorised drugs remain stable at roughly 10 billion rupees. Sales of controlled medications fell from 20% in 2011 to 11% in 2016 as a percentage of the whole market. The number of Stock keeping units (SKUs) is also declining for the regulated medicines from 7466 to 6323 in contrast to

unregulated medicines increased from 45,515 to 53,361 during July 2016.

- (ii) The 2013 DPCO only partially regulates the pharmaceutical market; it excludes a significant portion of pharmaceuticals and a number of dose markets within numerous regulated pharmaceuticals. For instance, there are four different dosages of Acyclovir tablets: 200 mg, 400 mg, 800 mg, and 1200 mg. The dosages of 200 mg and 400 mg, which constitute for 14 and 39% of the market shares, respectively, are restricted. The 800 mg and 1200 mg dosages, which make up almost 46.5% of the market, are uncontrolled. In order to respond to price regulations, businesses move production to uncontrolled dosage marketplaces and raise prices there.
- (iii) The cost of several regulated medications decreased: only 4 of the 128 drugs had a price index drop of more than half. Despite the DPCO's goal of halving prices, the price index grew dramatically. For instance, after DPCO, the price index for Bisacodyl increased to 1.46 while the price index for Imatinib Mesylate increased to 1.21.

2.9 UKIBC. (2018). *Drug Pricing in India: Regulations to Foster Innovation, Accessibility and Affordability*. UK India Business Council.

The Drugs (Prices Control) Order (DPCO) was examined in a report titled "Drug Pricing in India: Regulations to Foster Innovation, Accessibility and Affordability" as an effort to control the prices of drugs and medical devices with the goal of lowering the financial burden on patients and making healthcare accessible and affordable to millions of families.

Medication accessibility depends on medication availability in the market, and pharmaceutical companies play a critical role in ensuring drug availability in the market. Pricing controls may make drugs more inexpensive in the short term. Excessive pricing control lowers a company's revenues, causing it to curtail or halt manufacturing. Regulations and price control also directly affect R&D investments in medication development, which may negatively impact public health in the future. It requires a significant time and financial commitment to discover more efficient drug formulations as well as therapies for diseases that are currently untreated. In order to encourage innovation and creativity and ensure that its population have access to high-quality healthcare both today and in the future, India must maintain a balanced regulatory environment.

2.10 Sanghavi S. (2018). *CORR International-Asia Pacific: Is Price Capping of Knee Replacement Implants in India a Good Idea?*. Clinical orthopaedics and related research, 476(3), 469–472.

An article titled “CORR International-Asia Pacific: Is Price Capping of Knee Replacement Implants in India a Good Idea?” reviewed the government’s decision to put a price capping on Knee Replacement Implants.

It claimed that the National Pharmaceutical Pricing Authority (NPPA) set a price cap on total knee replacement implants and reduced their cost by 59% to 69%. With this judgement, manufacturers, suppliers, and hospitals would no longer be allowed to overcharge patients for knee implants while also reducing their own profit margins. Total knee replacement implant prices are astronomical; however this is not because of high import costs. Instead, the supplier or dealer pays almost twice as much to buy the implant domestically. The implant is subsequently sold to hospitals for a profit, placing a significant financial burden on the patient having surgery. The NPPA discovered that suppliers had an average total profit margin of 313% for each main knee implant. Similarly, in the case of revision knee implants, the average total profit margin was 369%.

As a result, when the NPPA issued the price cap for knee prostheses, it allowed a profit margin of 40% for ordinary cobalt chromium implants and 30% for titanium, high-flexion implants, oxidised zirconium, and those made of other materials.

Table 6: Price capping of knee implants

S.No.	Orthopaedic Knee Implant System	Average MRP before price capping	Ceiling Price excluding GST after price capping	% Change
1	Cobalt Chromium Alloy	₹ 1,58,324	₹ 54,720	-65%
2	Titanium Alloy	₹ 2,49,251	₹ 76,600	-69%
3	Oxidised Zirconium Alloy	₹ 2,49,251	₹ 76,600	-69%
4	High-Flexion Implant	₹ 1,81,728	₹ 56,490	-69%
5	Revision Implants	₹ 2,76,869	₹ 1,13,950	-59%

The article also stated the shortcomings in the price capping of knee implants:

- (i) To make up for the price deficit, hospitals might increase incidental charges or peripheral costs
- (ii) If the ceiling prices are not viable for the manufacturing companies, they might consider withdrawal of their implants from the Indian market
- (iii) Price capping doesn't include the costs of instruments or additional components used during surgery.

2.11 Bhatt, P., Parikh, P., et al. (2018). *Impact of Major Price Reduction by Government of India for Drug Eluting Stents on Stent Type Implantation and Associated Outcomes*. Journal of the American College of Cardiology, 71(11), A210.

The goal of the study "Impact of Major Price Reduction by Government of India for Drug Eluting Stents on Stent Type Implantation and Associated Outcomes" was to assess how stent price reductions affected stent type selection and the outcomes that were related to it.

Methodology: Before (n1=1015) and after (n2=1059) the pricing policy (March-August 2016 and 2017, respectively), ambidirectional data of percutaneous coronary intervention (PCI) patients implanted with US FDA-approved stents in India were gathered. Stent volumes and types that are comparable were recorded.

Results: Newer pricing policies reduced stent prices without reducing PCI (before n1=738; after n2=775) or stent volumes (p=0.9) in groups with similar baseline characteristics (propensity score=0.9). The use of more recent, second-generation zotarolimus and everolimus stent models—originally costing over \$ 1500—increased noticeably (P 0.001) while the use of earlier versions, particularly those made before 2013, declined quickly. Both groups' outcomes, performance metrics, risk-adjustment models, and procedural Appropriate Use Criteria (AUC) were unaltered (p=0.34).

Conclusion: Although the number of PCIs did not increase in accordance with AUC, the government's intent was successful in giving patients with cutting-edge DES models at extremely low prices, replacing older versions.

Table 7: Stent types and volumes before and after price reduction

DES stent name	Number of stents before price policy n (%)	Number of stents after price policy n(%)	% change in stents volume (*p<0.001,**p=0.034; +increase; - decrease)
Xience V	85 (8.37)	15 (1.41)	83.15

Xience Prime	49 (4.82)	32 (3.02)	37.37
Xience Xpedition	15 (1.47)	220 (20.77)	1312
Xience Pro	291 (28.66)	0	100
Xience Alpine	8 (0.78)	118 (11.14)	1328
Endeavour Sprint	113 (11.13)	1 (0.09)	99.19
Endeavour Resolute	274 (26.99)	267 (25.21)	6.6
Resolute Integrity	104 (10.24)	221 (20.86)	103.71
Resolute Onyx	44 (4.33)	185 (17.46)	303.23

2.12 BusinessToday. (2020, March 31). *Medical devices to be treated as drugs from April 1. Business Today.*

The Central Government has designated all medical devices supplied in India to be controlled as medications under the Medicines and Cosmetics Act, 1940, according to a news report headlined "Medical devices to be treated as drugs from April 1" (Business Today, 2020). This implies that all medical devices will be subject to the same quality and pricing controls as pharmaceuticals. The article also claimed that the National Pharmaceutical Pricing Authority (NPPA) would keep an eye on the Maximum Retail Price (MRP) for these medical devices that have been informed in order to make sure that no manufacturer or importer raises the price of a medical device by more than 10% of MRP within the previous twelve months.

2.13 Wood, S. (2021, May 14). *Stents as Essential Medicine: India's Cap on Stent Prices Could Have Ripples around the Globe. TCTMD.*

An article titled "Stents as Essential Medicine: India's Cap on Stent Prices Could Have Ripples around the Globe" (tctmd, May 2017) claims that raising the cost of coronary stents would increase the shockingly low number of patients in India who have primary angioplasty.

The argument that price limitation has made the cardiology healthcare system more accessible and affordable so that the typical person may get cardiac stents was noted in the paper by Sengupta, MD. Nagpur, India's Sengupta Hospital & Research Institute.

The report also referenced Upendra Kaul, MD's claim that just 22-24% of Indians had any kind of health insurance. Kaul works at the Fortis Escorts Heart Institute in New Delhi, India. As a result, they are required to pay for any necessary operation out of pocket.

He added that individuals with multivessel disease who previously might have chosen coronary bypass surgery due to its reduced cost would now pick PCI.

2.14 Bikkina, S., Manda, V. K., & Rao, U. V. A. (2021, September 29). *Pricing of Medical Oxygen & Related Equipment during COVID-19 times.*

S. Bikkina et al. in their study titled “Pricing of Medical Oxygen & Related Equipment during Covid-19 Times” stated that during the second wave of COVID-19 there was a lack of supply of medical oxygen and related devices to hospitals in India which led to hoarding and large scale black marketing for oxygen cylinders and related equipment. While the second wave intensity was at its highest in May 2021, the price of oxygen cylinders increased from Rs 20,000 to Rs 25,000 in mid-April 2021 and, in some cases, even to Rs 45,000. The Central Government issued a notification on February 11, 2020, stating that starting on April 1, 2020, all medical equipment (including oxygen concentrators) would be subject to the Drugs (Prices Control) Order, 2013's regulations. Following the notice, the Trade Margin Rationalisation (TMR) strategy was employed by NPPA to limit the pricing of oxygen concentrators by capping the trade margin at the first point of sales (price to distributor) at 70%.

2.15 Warke, P. (2021, July 23). *NPPA Caps Trade Margin for Six Essential Medical Devices.* Link Legal.

The NPPA has capped trade margin for oxygen concentrators, pulse oximeters, blood pressure monitors, nebulizers, digital thermometers, and glucometers, according to the article "NPPA Caps Trade Margin for Six Essential Medical Devices," in order to make these medical devices more affordable during the changing circumstances of the COVID pandemic. Based on information gathered by the NPPA, the study claims that the trade margins for these medical products ranged from 3% to 709%. The NPPA used its extra-ordinary powers granted to it by DPCO's paragraph 19 to control the trading margins of certain medical equipment at 70% in the interest of the public. In its Order dated June 3, 2021, the NPPA restricted the trade margin for oxygen concentrators, and in its Order dated July 13, 2021, it restricted the trade margin for pulse oximeters, blood pressure monitors, nebulizers, digital thermometers, and glucometers. It also said that by making this change, consumers will save a lot of money and get some medical supplies for less money.

The following compliances had to be met by the manufacturers of these medical devices:

- (i) As of June 9, 2021, the new oxygen concentrator prices are in effect.
- (ii) The increased rates for glucometers, digital thermometers, nebulizers, and blood pressure monitors entered into effect on July 20, 2021.
- (iii) Manufacturers of these medical equipment were compelled to lower their prices such that they did not exceed the MRP determined using the formula specified in the Orders if they were selling their products for more than the revised MRP.
- (iv) By July 20, 2021, for pulse oximeters, blood pressure monitors, nebulizers, digital thermometers, and glucometers, the manufacturer was required to provide a price list in Form-V to NPPA in accordance with Paragraph 25 of the DPCO and submit a copy to the State Drug Controller and Dealers.
- (v) In accordance with Section 25(3) of the DPCO, each retailer, dealer, hospital, and institution were required to post the price list and the supplementary price list, as provided by the manufacturer, in a prominent location on the business premises that was simple to access for anyone wishing to consult them.
- (vi) Under the terms of the DPCO read with the Essential Commodities Act of 1955, manufacturers who failed to comply with the revised MRP were required to deposit the overcharged amount, 15% p.a. interest from the date of the price increase, as well as a penalty of up to 100% of the overcharged amount.

2.16 Saini, G., Budhwar, V., & Choudhary, M. (2022). *Review on people's trust on home use medical devices during Covid-19 pandemic in India*. Health and Technology, 12(2), 527–546.

The involvement of medical devices in the COVID-19 pandemic was summarised by Garima Saini et al. in their work titled "Review on people's trust on home use medical devices during Covid-19 pandemic in India." The COVID-19 pandemic resulted in increased demand for some medical devices, which affected the medical device sector. Some nations even imposed export restrictions on these medical gadgets as a result of the growing demand. For nations like India, which relied on imports to meet its needs, this made the situation even worse. As a result, India had acute shortages of these medical supplies throughout the COVID-19 pandemic.

2.17 Anon, (2022). *Introducing more transparency in India’s medical device price regulation methods.* Ikigai Law.

An article titled "Introducing more transparency in India's medical device price regulation methods" provided a brief explanation of Trade Margin Rationalisation (TMR) and the factors the medical device industry should take into account when using TMR to control medical device costs.

The supply chain connections for medical devices were outlined in the paper. The long supply chain for medical devices has a large number of participants, all of whom are crucial to bringing the equipment to the patient or final consumer. Along the supply chain, medical device companies incur numerous expenses that eventually affect the price at which medical devices are offered to patients. According to the study, the supply chain for medical devices often adds costs.:

(i) Raw material costs:

- a. Actual cost of material (CIF – cost, insurance, freight)
- b. Taxes, duties & non-tariff barriers on material

(ii) Resources costs:

- a. Human resources cost
- b. Machinery cost (daily costs and non-routine costs)

(iii) Value adding costs: Cost of technology integration and design development

(iv) Compliance & other costs:

- a. Regulatory certification/compliance costs
- b. R&D cost

The article explained trade margin as “the difference between the price to patients (i.e., the maximum retail price) and the price at which the manufacturers sell the drugs/devices to distributors (i.e., the price to trade).”

Trade Margin = Price the patient pays for the medical device

– Price at which medical device is sold to stockists/ traders

While the document's definition of trade margin rationalisation says that trade margin should be capped and used to calculate the maximum retail price of the medical item. Currently, the Pricing Authority calculates the maximum retail price of medical equipment using the TMR technique, and the formula is as follows:

$$\text{Maximum Retail Price} = \text{Price to Distributor (PTD)} + (\text{PTD} \times \text{TM}) + \text{Applicable GST}$$

The National Pharmaceutical Pricing Authority (NPPA) indicated in a notification that it would control the cost of five medical devices in July 2021 to protect the accessibility of medical devices during the COVID-19 pandemic:

- (i) Pulse oximeter
- (ii) Blood pressure monitoring machine
- (iii) Nebulizer
- (iv) Digital thermometer
- (v) Glucometer

NPPA used the Trade Margin Rationalization (TMR) approach to regulate the maximum retail price of these five medical devices.

It also included several viewpoints from the medical device sector regarding the application of the TMR method for medical device pricing control. On where to put the point of first sale, different people have different ideas. Some Indian medical equipment manufacturers contend that the landing price, or the point of first sale for importers, should be used. Some contend that the "price to distributor" should not be regarded as the point of first sale and that the trade margin rationalisation for domestically produced medical devices should be based on the selling price of items as they leave the seller's factory (also known as "ex-factory pricing"). Some medical device importers, though, are of the opinion that the trade margin should start at the moment of first sale. This is because the cost of the importing company for things like healthcare professional training, product liability, technical product support, and instrument handling is disregarded when determining the maximum retail price based on when the medical device enters India (i.e., the landing price).

CHAPTER – 3
NEED FOR THE STUDY, STUDY
OBJECTIVES, AND RESEARCH
METHODOLOGY

CHAPTER 3: NEED FOR THE STUDY, OBJECTIVES OF THE STUDY, AND RESEARCH METHODOLOGY

3.1 Need for the Study

In 2020, by designating all medical devices and medical equipment supplied in India to be as ‘drugs’, the Indian government brought them under the same price control regulations as drugs. Thereby, the prices of medical devices are now also regulated through the Drug (Price Control) Order, 2013 issued under the National Pharmaceutical Pricing Policy implemented by National Pharmaceutical Pricing Authority (NPPA). The aim of such price regulation is to keep a check on profiteering and to increase access to affordable healthcare. However, implementation of price regulation and control affects the profitability of companies and sometimes leads to the exit of some firms from the market. This ultimately affects the availability of medical devices to the patients. The study, therefore, assess the extent of and transparency in the price control regulations on medical devices in India. The study also evaluates the impact of price control regulation on the medical devices manufacturers and importers in India.

3.2 Objectives of the Study

3.2.1 Primary Objective

Primary objective of the study is to perform An evaluation of Indian medical device industry's exposure to price control regulation.

3.2.2 Secondary Objectives

1. To determine the extent of and transparency in the price control regulation on medical devices in India.
2. To determine the interbrand price variability between brands of the same medical devices and to determine the impact of price control regulation on interbrand price variability.
3. To evaluate the impact of price control regulations on the prices of medical devices.
4. To evaluate the impact of price control regulations on the prices of individual brands of medical devices.
4. To evaluate the impact of price control regulations on individual medical devices companies.
5. To compare the impact of price control regulations on domestic and international medical devices companies.

6. To compare the changes in the price of medical device after price capping with the changes in its usage.

3.3 Research Methodology

3.3.1 Research Type: Exploratory Research

3.3.2 Data Type: Secondary Data

3.3.3 Source of Data Collected:

The sources of data used in this analysis were the “office memorandums” and “working sheets” issued by the National Pharmaceutical Pricing Authority (NPPA), Government of India.

“Working sheets” are formulated by the NPPA for calculating the ceiling price/ retail price of the formulations under the Drugs (Prices Control) Order, 2013.

“Office memorandums” are issued by the NPPA to notify about the fixation and/or revision of prices of pharmaceutical formulations and/or medical devices under the Drug (Prices Control) Order, 2013.

Other sources of data used were the Gazette Notifications issued by the government, research articles from reliable sources and news articles published online.

3.3.4 Methodology:

The methodology used in the study was secondary research, which involved gathering information from websites, articles, and reports published by the National Pharmaceutical Pricing Authority (NPPA) and the Central Drugs Standard Control Organisation (CDSCO), as well as Google and other external data sources.

For the selection of medical devices for the study, the following criteria was followed:

- (i) Medical devices should be under either TMR or price capping.
- (ii) Data regarding the prices of brands of medical devices should be available in the public domain.

Secondary research was carried out to ascertain the total number of medical devices notified in India, the number of medical devices under price control, and the method of price control applied in order to ascertain the level of price control legislation on medical devices.

To determine the transparency in the price control regulations, official websites of NPPA, CDSCO, and DPCO 2013 were searched to determine the availability of data pertaining to the pricing of medical devices used for formulating pricing policies and the availability of data was compared with the availability of data for drug formulations.

For the comparison between the changes in price and usage of medical devices, medical device selected should have data pertaining to the price and usage for a period of at least 5 years available in the public domain.

Table 8: List of medical devices included in the study

S.No.	Medical Device	Mechanism of Price Control
1.	Pulse Oximeter	Trade Margin Rationalisation
2.	Nebulizer	Trade Margin Rationalisation
3.	Blood Pressure Monitoring Device	Trade Margin Rationalisation
4.	Digital Thermometer	Trade Margin Rationalisation
5.	Glucometer	Trade Margin Rationalisation
6.	Oxygen Concentrator	Trade Margin Rationalisation
7.	Condom	Price Capping
8.	Hormonal IUD	Price Capping
9.	IUD Containing Copper	Price Capping
10.	Drug Eluting Stent	Price Capping
11.	Cardiac Stent	Price Capping
12.	Orthopaedic Knee Implant	Price Capping

To evaluate the impact of TMR approach on the prices of medical devices the percentage price reduction with respect to MRP before TMR was calculated using the formula:

$$\text{Price Reduction (\%)} = \frac{(\text{Old MRP} - \text{Revised MRP})}{\text{Old MRP}} \times 100$$

The interbrand price variability between the highest priced and lowest priced brands of the same medical device was calculated using the formula:

$$\text{Interbrand Price Variability (\%)} = \frac{(\text{Highest Priced Brand} - \text{Lowest Priced Brand})}{\text{Lowest Priced Brand}} \times 100$$

To evaluate the impact of price capping approach on the prices of medical devices the percentage price reduction with respect to PTR was calculated using the formula:

$$\text{Price Reduction (\%)} = \frac{(PTR - \text{Average PTR})}{PTR} \times 100$$

To compare the percentage change in the price of drug eluting stent with the percentage change in usage for the period 2016-2020, line graphs were plotted using Microsoft Excel.

3.4 Important Terms and their Definition

Medical Device

According to Central Drugs Standard Control Organization (CDSCO), medical device refers to “All devices including an instrument, apparatus, appliance, implant, material or other article, whether used alone or in combination, including a software or an accessory, intended by its manufacturer to be used specially for human beings or animals which does not achieve the primary intended action in or on human body or animals by any pharmacological or immunological or metabolic means, but which may assist in its intended function by such means for one or more of the specific purposes of:

- (i) Diagnosis, prevention, monitoring, treatment or alleviation of any disease or disorder.
- (ii) Diagnosis, monitoring, treatment, alleviation or assistance for, any injury or disability.
- (iii) Investigation, replacement or modification or support of the anatomy or of a physiological process.
- (iv) Supporting or sustaining life.
- (v) Disinfection of medical devices.
- (vi) Control of conception.”

Trade Margin Rationalisation (TMR)

Trade Margin Rationalisation is a mode of price control regulation in which the trade margins in the supply chain are capped by the Government.

Price Capping

Price Capping is a mode of price control regulation in which the ceiling price is fixed by the Government.

Maximum Retail Price (MRP)

As per DPCO 2013, “Maximum retail price means the ceiling price or the retail price plus local taxes and duties as applicable, at which the drug shall be sold to the ultimate consumer and where such price is mentioned on the pack”.

Price to Retailer (PTR)

As per DPCO 2013, “price to retailer means the price of a drug at which it is sold to a retailer which includes duties and does not include local taxes”

Ceiling Price

As per DPCO 2013, “Ceiling price means a price fixed by the Government for Scheduled formulations in accordance with the provisions of the Drugs (Prices Control) Order, 2013”.

Revised MRP

Revised MRP refers to the maximum retail price notified by the National Pharmaceutical Pricing Authority (NPPA) for medical devices or drug formulations after trade margin rationalisation.

3.5 Limitations of the Study

The study's primary flaw was that it only examined the short-term effects of price control laws on the costs of medical devices. Due to the lack of longer-term data on the pricing of the medical equipment included in the study, the long-term impact could not be assessed..

The lack of financial data to evaluate how price control legislation will affect the profitability of medical device producers and importers as well as the accessibility of medical equipment in India was another significant study restriction. There is currently no trustworthy source of financial data accessible.

3.6 Directions for Future Research

Future research in this area seems necessary as soon as the necessary financial data is made publically accessible. The profitability of medical device companies can be evaluated in terms of the economic effects of price control rules. Long-term reductions in medical equipment costs may also be achieved through pricing regulation and management. The study also allows room for future research into how price control regulations may affect the availability of medical devices in India if information about their sales volume is made publicly available..

CHAPTER – 4
**DATA ANALYSIS AND
INTERPRETATION**

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 Assessment of Price Control on Medical Devices in India

4.1.1 Extent of Price Control on Medical Devices in India

There were 347 different categories of medical devices according to the Central Drugs Standard Control Organization's (CDSCO) classification of medical devices. All of these medical equipment are subject to price restriction under the 1940 Drugs and Cosmetics Act, according to Ministry of Health and Family Welfare Notification S.O. 648(E), which was published on February 11, 2020. But only 12 (3.45%) of the medical equipment were subject to some sort of price regulation.. There were two approaches used by NPPA for controlling the prices of medical devices: Trade Margin Rationalisation (TMR) and Price Capping. There were 6 medical devices for which NPPA has capped the ceiling prices, while 6 were under TMR. It was also observed that the price control was limited to the devices and did not extend to their accessories and equipment used to assist their functioning or surgical procedure.

Table 9: Price control of medical devices

Number of Medical Devices Listed	347
Number of Medical Devices under Price Control	12
Percentage of Medical Devices under Price Control	3.45%
Price Control Approaches Used for Medical Devices	Price Capping and Trade Margin Rationalisation
Number of Medical Devices under Price Capping	6
Number of Medical Devices under TMR	6

Source: Obtained from Medical Devices Classification, CDSCO dated 1 November, 2020.

Table 10: Medical devices under price capping

S.No.	Medical Device	Year in which price control was imposed
1	Cardiac Stents	2017
2	Condoms	2013
3	Drug Eluting Stents	2017
4	Hormonal IUD	2014
5	Intra Uterine Device (Cu-T)	2014
5	Orthopaedic Knee Implants	2017

Source: Obtained from Gazette Notification(s), Govt. of India; 3348(E); 412(E); 3128(E); 2349(E); 2668 (E).

Table 11: Medical Devices under TMR

S.No.	Medical device	Year in which price control was imposed
1	Blood Pressure Monitoring Machine	2021
2	Digital Thermometer	2021
3	Glucometer	2021
4	Nebulizer	2021
5	Oxygen Concentrators	2021
6	Pulse Oximeter	2021

Source: Obtained from Gazette Notification(s), Govt. of India; 2808(E); 2161(E).

4.1.2 Transparency in Price Control on Medical Devices in India

Secondary research was performed to evaluate the transparency in the price control on medical devices by determining the availability of different sets of pricing data used by NPPA for price calculations on its website, official documents or any other official source.

In comparison to drug formulations, there was insufficient data provided by NPPA or any other official source regarding the pricing data used for calculation of ceiling price or trade margin for medical devices both at the time of fixation and revision. NPPA did not provide the calculation of ceiling price or trade margin, as it does for drug formulations, for 7 (out of 12) medical devices under price control. Although written explanations were provided for some medical devices after criticism and written appeal from the industry. NPPA also did not provide the source of pricing data it used for calculation of ceiling price or trade margin for 9 (out of 12) medical devices under price control.

Table 12: Comparison of availability of pricing data between medical devices and drug formulations

Data Type	Medical Devices	Drug Formulations
Pricing data used for calculation of ceiling price at the time of fixation	●	●
Pricing data used for calculation of ceiling price at the time of revision	○	●
MAT values used in calculation of ceiling price	●	●
Calculation of ceiling price at the time of fixation	●	●
Calculation of ceiling price at the time of revision	○	●
Pricing data used for calculation of trade margins	○	●

Calculation of trade margins	○	○
Old MRP and Revised MRP after TMR	●	●
Source of data used for price calculation	◐	◐
Source of data used for calculation of trade margins	○	●

Legend: ●=Available, ◐=Available for some, ○=Not available.

Table 13: Availability of pricing data for medical devices under price capping

Data Type	Condom	Cardiac Stent	Drug Eluting Stent	Hormonal IUD	IUD Containing Cu	Knee Implant
Pricing data used for calculation of ceiling price at the time of fixation	✓			✓	✓	
Pricing data used for calculation of ceiling price at the time of revision						
MAT values used in calculation of ceiling price	✓			✓	✓	
Calculation of ceiling price at the time of fixation	✓	✓	✓	✓	✓	
Calculation of ceiling price at the time of revision						
Source of data used for price calculation	✓			✓	✓	

Legend: ✓=Available, BLANK=Not available

Table 14: Availability of pricing data for medical devices under TMR

Data Type	BPM Device	Digital Thermometer	Glucometer	Nebulizer	Oxygen Concentrator	Pulse Oximeter
Pricing data used for calculation of trade margins						
Calculation of trade margins						
Old MRP and Revised MRP after TMR	✓	✓	✓	✓		✓
Source of data used for calculation of trade margins						

Legend: ✓=Available, BLANK=Not available

4.2 Impact Assessment of Trade Margin Rationalisation (TMR) on Medical Devices in India

4.2.1 Interbrand Price Variability

To evaluate the impact of TMR on interbrand price variability, the price variability between the brands of same medical device for each medical device category before and after TMR was calculated and compared.

Figure 3 represents the interbrand price variability between the highest priced and least priced brands of 5 medical devices (Pulse Oximeter, Blood Pressure Monitoring Device, Nebulizer, and Glucometer) before TMR was put in place for them.

It was observed that for each of the 5 medical devices, for which TMR was imposed, the interbrand variability was more than 1000% with 4 of them (Nebulizer, Digital Thermometer, Blood Pressure Monitoring Device, and Pulse Oximeter) having an interbrand variability of more than 10000%. Highest interbrand variability was observed with Pulse Oximeter of 198982% with a Maximum MRP/unit of ₹629100 and a Minimum MRP/unit of ₹316. Least interbrand variability was observed with Glucometer of 1733% with a Maximum MRP/unit of ₹5499 and a Minimum MRP/unit of ₹300.

Figure 3: Interbrand price variability of medical devices before TMR

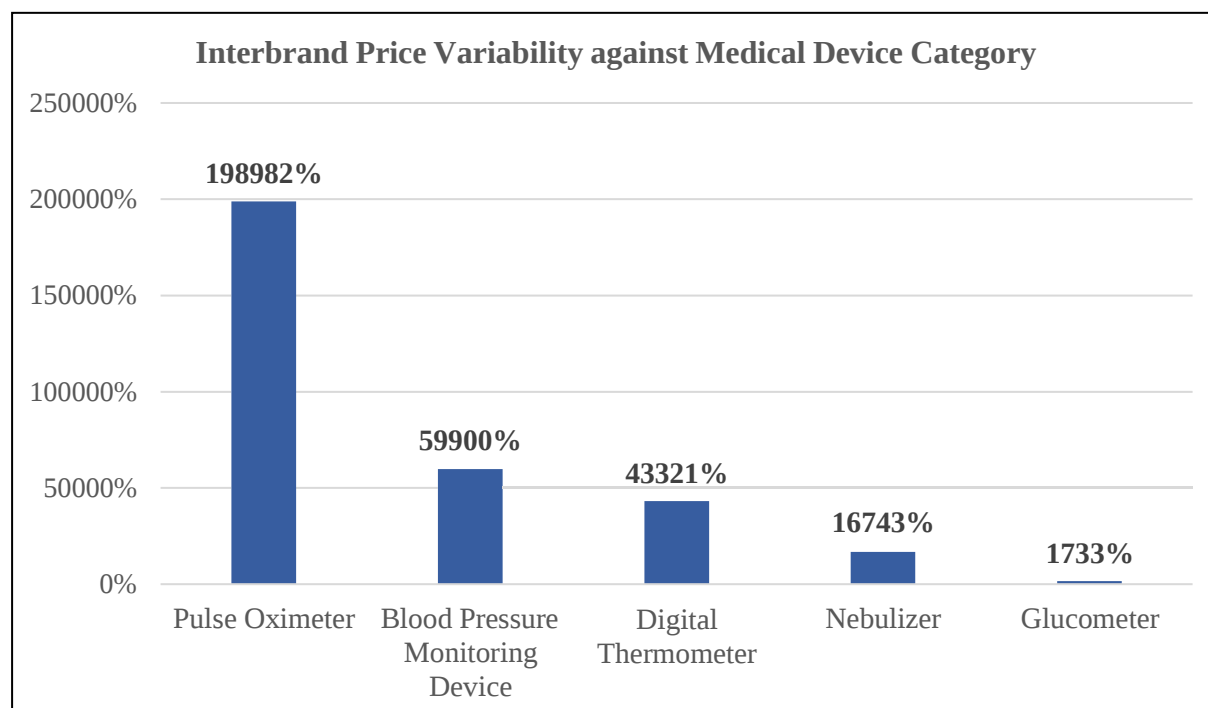


Table 15: Interbrand price variability of medical devices before TMR

S.No.	Medical Device	Number of Brands	Maximum MRP/unit	Minimum MRP/unit	Interbrand Variability
1	Pulse Oximeter	243	629100	316	198982%
2	Blood Pressure Monitoring Device	293	300000	500	59900%
3	Digital Thermometer	133	82500	190	43321%
4	Nebulizer	200	36380	216	16743%
5	Glucometer	100	5499	300	1733%

Source: Office Memorandum, NPPA dated 28 July, 2021.

Figure 4 represents the interbrand price variability between the highest priced and least priced brands of 5 medical devices (Pulse Oximeter, Blood Pressure Monitoring Device, Nebulizer, and Glucometer) after TMR was put in place for them.

After TMR, the interbrand price variability between the highest and lowest priced brands of medical devices increased for Blood Pressure Monitoring Device, Nebulizer, and Glucometer by 48%, 264%, and 688% respectively while Pulse Oximeter, and Digital Thermometer reported a decrease in their interbrand price variability by 1% and 28% respectively.

Figure 4: Change in interbrand price variability of medical devices after TMR

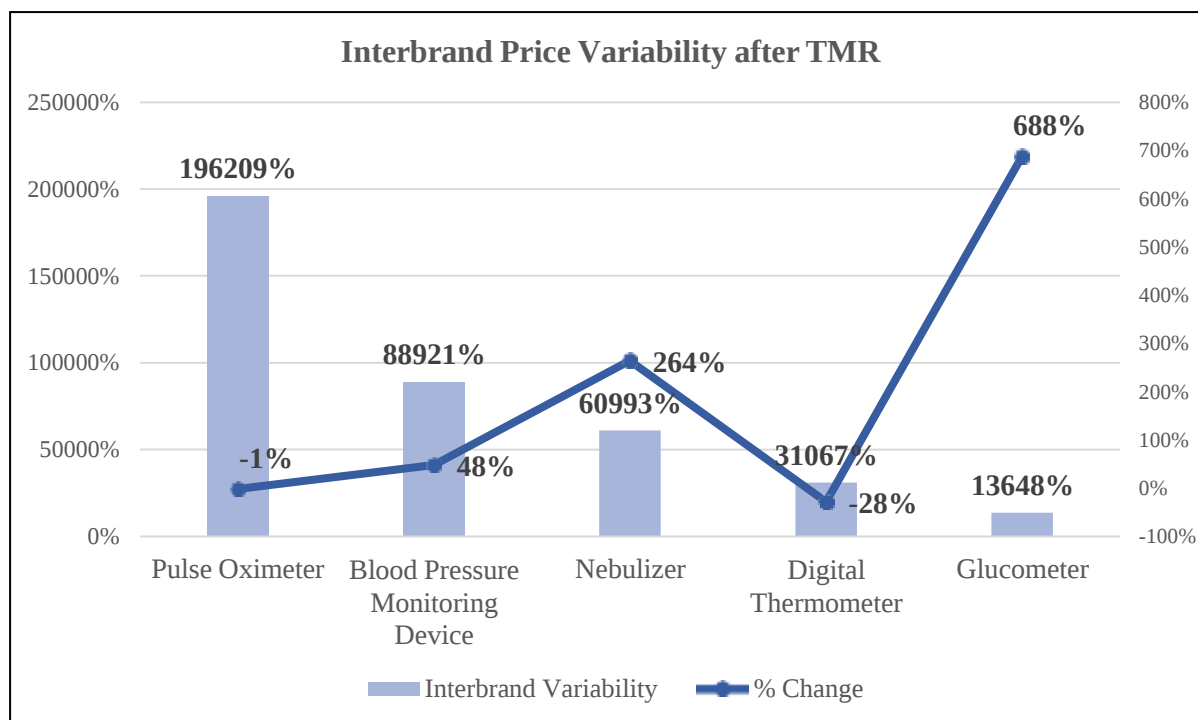


Table 16: Interbrand price variability of medical devices after TMR

S. No.	Medical Device	Number of Brands	Maximum MRP/unit	Minimum MRP/unit	Interbrand Variability	Change
1	Pulse Oximeter	243	333725	170	196209%	1%
2	Blood Pressure Monitoring Device	293	300000	337	88921%	-48%
3	Nebulizer	200	36045	59	60993%	-264%
4	Digital Thermometer	133	32725	105	31067%	28%
5	Glucometer	100	5499	40	13648%	-688%

Source: Office Memorandum, NPPA dated 28 July, 2021.

4.2.2 Percentage Price Reduction

To determine the impact of trade margin rationalisation on the prices of medical devices, the percentage of price reduction from the MRP originally charged for the medical device before TMR was calculated for individual medical devices brands.

For 5 medical devices, there were 103 companies and 969 brands which were notified under TMR and their trade margins were fixed at 70% at the first point of sale (Price to Distributor).

Out of these 969 brands, 896 (92%) brands reported a downward revision in their prices. The prices of these brands were reduced by 98-1% after TMR.

Table 17: Trade margin rationalisation of 5 medical devices

Total Number of Medical Devices Notified under TMR	5
Total Number of Companies Notified under TMR	103
Total Number of Brands Notified under TMR	969
Total Number of Brands Reported Price Reduction	896 (92%)
Maximum Price Reduction	98%
Minimum Price Reduction	1%

Source: Office Memorandum, NPPA dated 28 July, 2021; Annexure 2.

Refer to annexure 2 for calculation of percentage price reduction for individual medical devices brands.

4.2.2.1 Percentage Price Reduction by Medical Device Category

Figure 5 represents the average price reduction with respect to MRP before TMR for each medical device category. Highest reduction was observed with Nebulizer, the prices of Nebulizer brands were reduced by 41.23% on an average. While the least reduction was observed with brands of Blood Pressure Monitoring Device of 24.95%.

Figure 5: Average price reduction for each medical device category after TMR

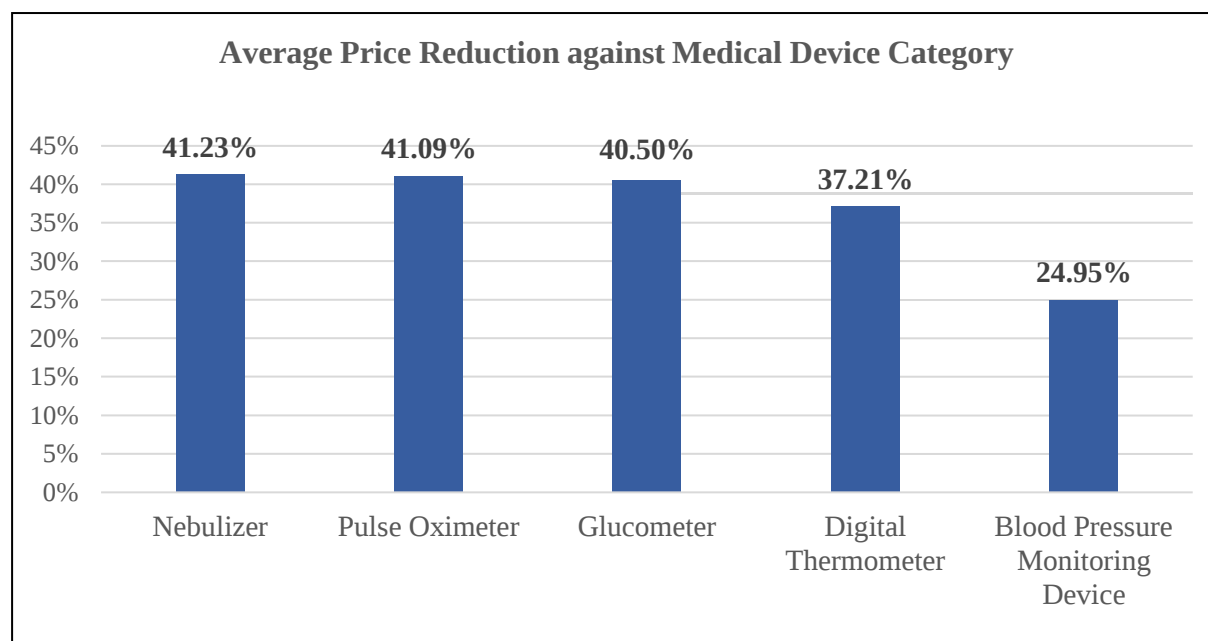


Table 18: Average price reduction for each medical device category with their number of brands

S.No.	Category	Number of Brands	Number of Brands reported Price Reduction	Highest Price Reduction	Average Price Reduction
1	Blood Pressure Monitoring Device	293	273	70%	24.95%
2	Digital Thermometer	133	124	77%	37.21%
3	Glucometer	100	80	98%	40.50%
4	Nebulizer	200	194	83%	41.23%
5	Pulse Oximeter	243	224	89%	41.09%

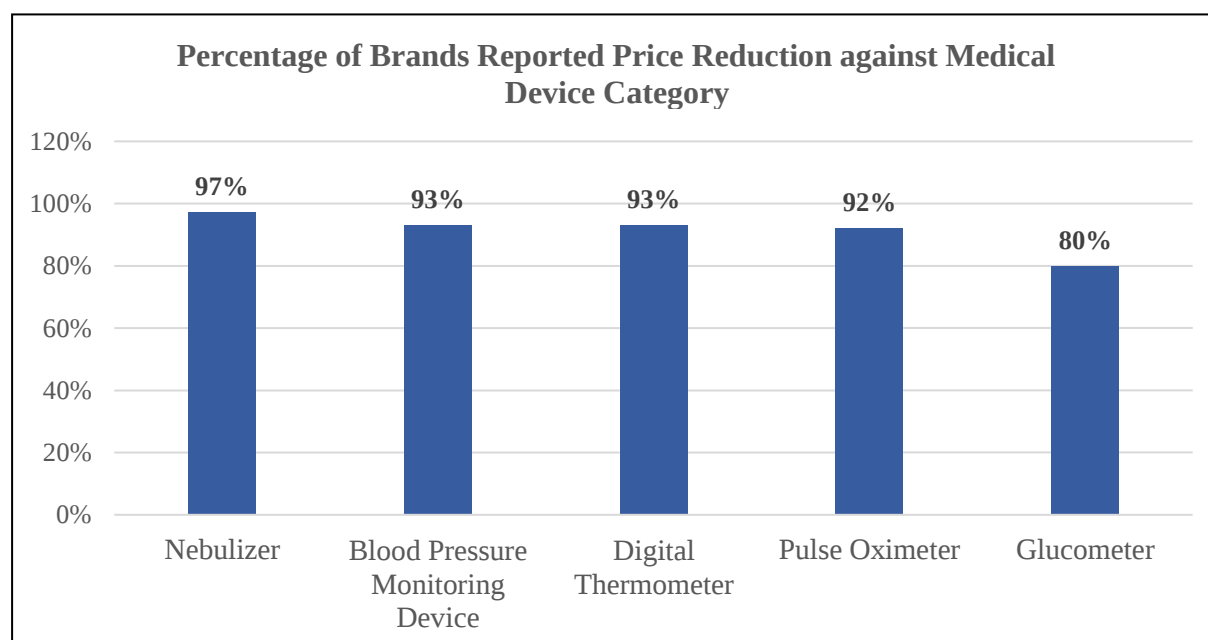
Source: Office Memorandum, NPPA dated 28 July, 2021; Annexure 2.

Figure 6 represents the percentage of brands which reported downward revision in their MRP with respect to the total number of brands notified under TMR.

For Nebulizer, Blood Pressure Monitoring Device, Digital Thermometer, and Pulse Oximeter, more than 90% of their brands were affected by TMR and reported a downward revision in MRP.

Highest percentage of brands were affected of Nebulizer (97%) with a total of 194 brands out of 200 brands reporting a downward revision in MRP due to TMR. Least affected by TMR was Glucometer brands with only 80% brands reporting a downward revision in MRP.

Figure 6: Percentage of brands reported price reduction after TMR against medical device category



4.2.2.2 Most affected Brands based on Percentage Price Reduction

To determine the impact of trade margin rationalisation on the MRP of individual medical devices brands, the percentage price reduction from the MRP originally charged for the medical devices brands was calculated and compared to determine the top 5 most affected brands.

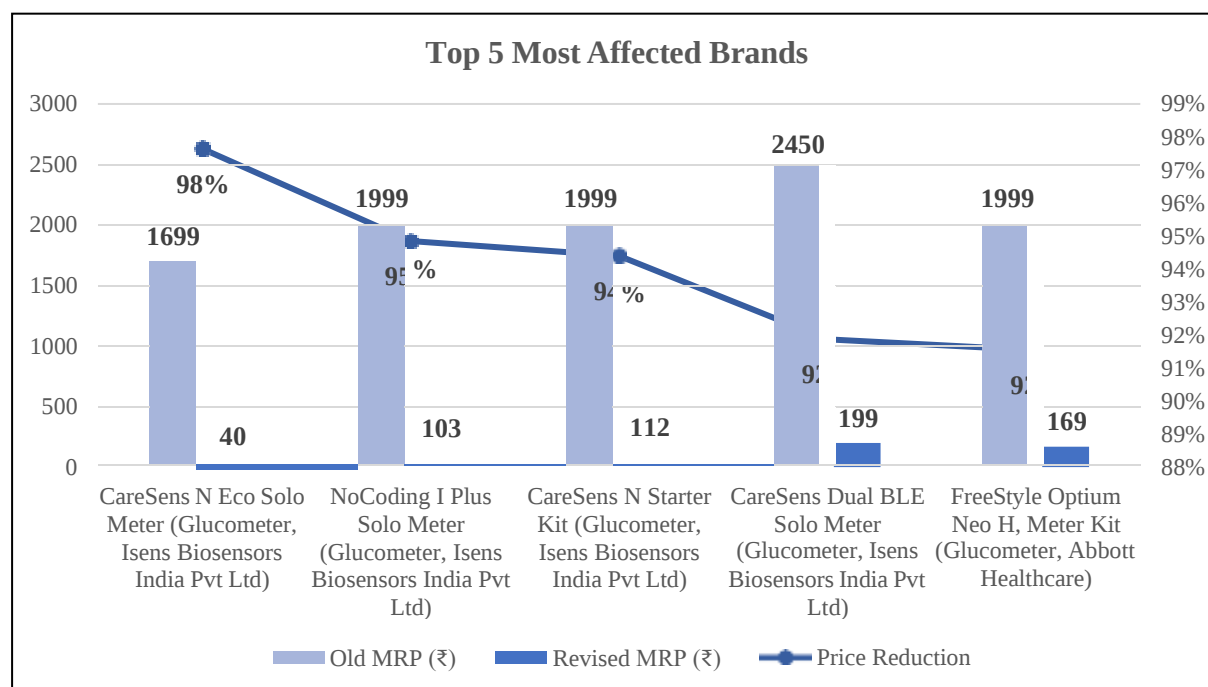
Figure 7 represents the top 5 most affected brands based on percentage price reduction from MRP before TMR.

All of the top 5 most affected brands were Glucometer brands with each of them having a percentage price reduction of more than 90%. Highest price reduction of 98% was observed

with the Glucometer brand CareSens N Eco Solo Meter of Isens Biosensors India Private Limited (MNC)

Out of the top 5 most affected brands by percentage price reduction, the top 4 brands belonged to the same company, Isens Biosensors India Private Limited (MNC), with each of these 4 brands having a price reduction of more than 90%.

Figure 7: Top 5 most affected brands by TMR based on percentage price reduction in Rupee terms and in percentage terms



4.2.2.3 Percentage Price Reduction by Medical Device Company

Table 19 represents the list of companies notified under TMR with their number of brands notified, number of brands reporting price reduction, and the number of brands by percentage price reduction.

For most companies, the prices of majority of their brands were reduced by 40-60% as a result of TMR. Price reduction of more than 80% was reported in brands of seven companies.

There were eight companies (EMCO Meditek Pvt Ltd, Euro Medi Tools Pvt Ltd, Healthgenie India Pvt Ltd, LifeScan Medical Devices India Pvt Ltd, Meril Diagnostic Pvt Ltd, Paramount Surgimed, Philips India Ltd, and Schiller Healthcare India Pvt Ltd) whose brands reported no reduction in their prices.

Table 19: List of companies notified under trade margin rationalisation

S.No.	Company Type	Company Name	Number of Brands Reported Price Reduction	Number of Brands by Percentage Price Reduction				
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %
1	Indian	9M Medical System Pvt Ltd	8 (8)	0	0	4	4	0
2	Indian	A&D Instrument India Pvt Ltd	19 (19)	4	11	4	0	0
3	Indian	A&R Healthcare Pvt Ltd	29 (30)	22	6	0	1	0
4	MNC	Abbott Healthcare Pvt Ltd	2 (4)	0	1	0	0	1
5	Indian	Advay Consumer Care Pvt Ltd	2 (2)	0	2	0	0	0
6	Indian	Amkay Products Pvt Ltd	3 (3)	0	0	1	2	0
7	Indian	Andhra Surgical Emporium	1 (1)	1	0	0	0	0
8	Indian	Anita Industries	10 (10)	5	3	2	0	0
9	MNC	Ascensia Diabetes Care India Pvt Ltd	2 (3)	0	1	1	0	0
10	Indian	Ashok Enterprises	26 (27)	6	7	12	1	0
11	Indian	ASIO Healthcare Private Limited	5 (5)	0	3	2	0	0
12	MNC	B. Braun Medical India Pvt Ltd	1 (2)	0	1	0	0	0
13	MNC	Beurer India Pvt. Ltd.	20 (24)	10	10	0	0	0
14	Indian	Biomedical Pvt Ltd	20 (20)	0	1	13	6	0
15	Indian	BPL Medical Technologies Pvt Ltd	32 (35)	6	21	5	0	0
16	MNC	Choicemed Technology India Pvt Ltd	20 (22)	3	4	11	2	0
17	Indian	Deluxe Scientific Surgico Pvt Ltd	5 (5)	0	3	2	0	0
18	Indian	Disha Instruments and Surgical Industries	10 (12)	5	5	0	0	0
19	Indian	Doctor Bell Ram and Sons Pvt Ltd	6 (6)	0	0	4	2	0
20	Indian	Dr. Sayanis Healthcare Pvt. Ltd.	1 (1)	0	1	0	0	0
21	Indian	Elko Surgical & Allied Products LLP	2 (2)	0	2	0	0	0
22	Indian	EMCO Meditek Pvt Ltd	0 (4)	0	0	0	0	0
23	Indian	Enkay Brand Distribution Pvt	8 (8)	0	1	5	2	0
24	Indian	Entero Healthcare Solutions Pvt Ltd	29 (30)	3	16	8	2	0

25	Indian	Equinox Overseas Pvt Ltd	15 (15)	2	5	4	4	0
26	Indian	Euro Medi Tools Pvt Ltd	0 (1)	0	0	0	0	0
27	Indian	Finova Healthcare Pvt Ltd	2 (2)	0	0	2	0	0
28	Indian	Genericare	1 (1)	0	0	1	0	0
29	Indian	Glowria INC	10 (10)	1	1	6	2	0
30	Indian	Haiden Technology Pvt Ltd	11 (11)	1	5	5	0	0
31	Indian	Health Care Solutions	5 (5)	0	1	3	1	0
32	Indian	Healthgenie India Pvt Ltd	0 (2)	0	0	0	0	0
33	Indian	Heidelco Medicores Pvt Ltd	1 (1)	0	0	1	0	0
34	Indian	Hicks Thermometer India Ltd	12 (12)	5	6	1	0	0
35	Indian	Home Medix India Pvt Ltd	1 (1)	0	0	0	1	0
36	Indian	I Trust Care	2 (2)	0	0	2	0	0
37	Indian	Impact Distributors	16 (17)	9	3	3	1	0
38	Indian	Industrial Electronic & Allied Products	31 (31)	30	0	1	0	0
39	Indian	Infinity Mediquip India Pvt Ltd	19 (19)	3	5	8	1	2
40	MNC	Isens Biosensors India Pvt Ltd	5 (5)	0	0	0	1	4
41	Indian	Jaina India Pvt Ltd	1 (1)	0	0	0	1	0
42	Indian	Kannu Impex India Pvt Ltd	26 (26)	2	1	13	10	0
43	Indian	Lifeline Medical Devices	25 (25)	2	15	7	1	0
44	MNC	LifeScan Medical Devices India Pvt Ltd	0 (3)	0	0	0	0	0
45	Indian	Mann Electronics	1 (1)	0	1	0	0	0
46	MNC	Masimo Medical Technologies India Pvt Ltd	52 (52)	1	2	47	1	1
47	MNC	Matrix Cellular (International) Services Ltd	1 (1)	0	0	0	0	1
48	Indian	Medi Sales India Pvt Ltd	4 (4)	0	2	1	1	0
49	Indian	Medicare Products	1 (1)	0	0	0	1	0
50	MNC	Mediquip Healthcare Solutions LLP	1 (1)	0	0	1	0	0
51	Indian	Mediquipments (Importer)	3 (5)	3	0	0	0	0
52	Indian	Medsources Ozone Biomedicals Pvt Ltd	10 (10)	2	5	1	2	0
53	Indian	Medtech Life Pvt Ltd	16 (16)	0	1	7	8	0
54	Indian	Mehar Healthcare Corporation	8 (9)	0	2	5	1	0

55	Indian	Meril Diagnostic Pvt Ltd	0 (4)	0	0	0	0	0
56	Indian	Micro and Nano Technologies	7 (7)	0	2	4	1	0
57	Indian	Microgene Diagnostic Systems Pvt Ltd	28 (28)	0	6	17	5	0
58	Indian	Microtek International Pvt Ltd	3 (4)	0	2	1	0	0
59	Indian	Morepen Laboratories Ltd	25 (25)	5	10	10	0	0
60	Indian	Nareena Lifesciences Pvt Ltd	4 (4)	0	0	0	4	0
61	Indian	National Industrial Corporation	28 (29)	0	9	10	9	0
62	MNC	Nipro	1 (1)	0	1	0	0	0
63	MNC	Nisco (India)	23 (24)	0	1	10	9	3
64	Indian	Nureca Ltd	30 (36)	1	13	13	3	0
65	MNC	Omron Healthcare India Pvt Ltd	22 (29)	17	4	1	0	0
66	Indian	Oremed Medical	1 (1)	0	0	0	1	0
67	Indian	Paramount Surgimed	0 (2)	0	0	0	0	0
68	Indian	Peerless Biotech Pvt Ltd	4 (4)	0	0	4	0	0
69	MNC	Philips India Ltd.	0 (2)	0	0	0	0	0
70	MNC	Phoenix Innovative Healthcare Manufacturers Pvt Ltd	4 (4)	0	0	4	0	0
71	Indian	Poly Medicure Ltd.	1 (1)	0	0	1	0	0
72	Indian	Prajwal Surgicals & Scientifics	1 (1)	0	0	1	0	0
73	Indian	Raxon biomedical	4 (4)	0	0	4	0	0
74	Indian	Recorders and Medicare Systems Pvt Ltd	1 (3)	1	0	0	0	0
75	Indian	Rennex Medical	16 (18)	2	3	9	2	0
76	Indian	RGB Healthcare Pvt Ltd	1 (1)	0	1	0	0	0
77	MNC	RMD Medical	3 (3)	2	1	0	0	0
78	MNC	Roche Diabetes Care India Pvt Ltd	1 (7)	1	0	0	0	0
79	Indian	Romsons Group Pvt Ltd	5 (5)	0	2	3	0	0
80	Indian	Sahyog Wellness	14 (14)	2	6	6	0	0
81	Indian	Saify Healthcare and Medi Devices (India) Pvt. Ltd,	3 (3)	0	2	0	1	0
82	Indian	Sara Healthcare Pvt Ltd	7 (7)	0	0	7	0	0
83	MNC	Schiller Healthcare India Pvt Ltd	0 (4)	0	0	0	0	0

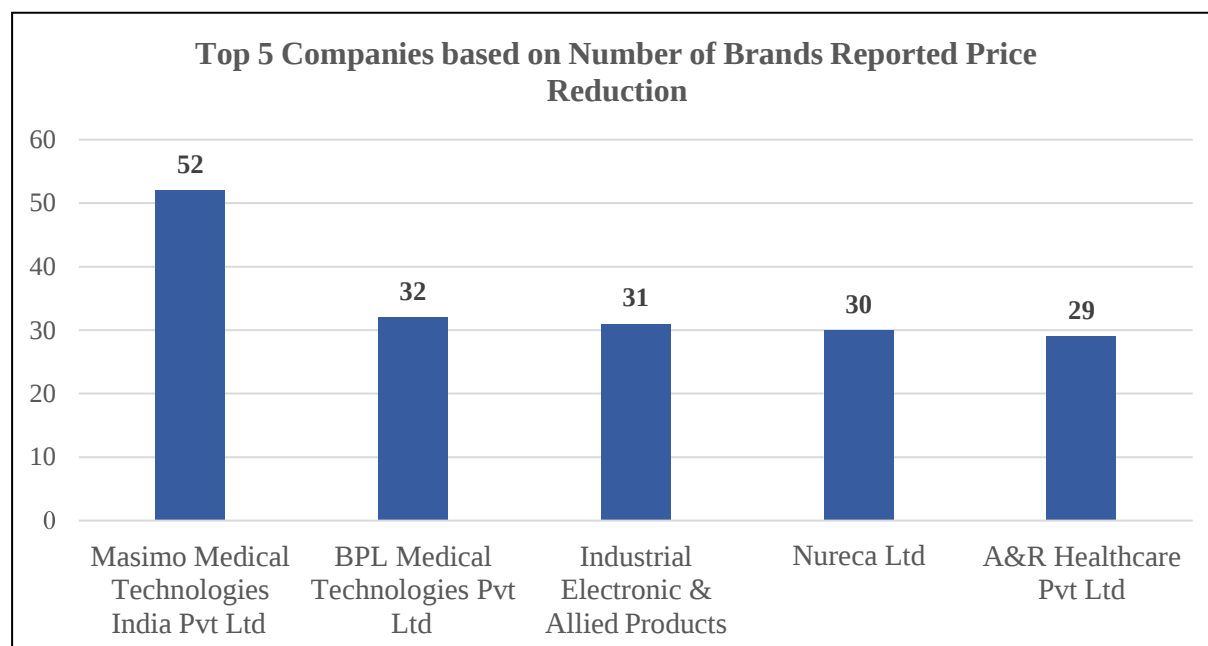
84	MNC	SD Biosensor Healthcare Pvt Ltd	11 (11)	3	7	1	0	0
85	MNC	Sensa Core Medical Instrumentation Pvt Ltd	20 (22)	0	6	6	8	0
86	Indian	Shri Jai Durge International	3 (3)	0	2	1	0	0
87	Indian	Silverline Medtech Pvt Ltd	8 (8)	0	1	4	2	1
88	Indian	Skytech Medical & Surgical Devices	14 (14)	14	0	0	0	0
89	Indian	Spaceage Multiproducts Pvt Ltd	3 (3)	0	0	3	0	0
90	Indian	SS Electronics	1 (1)	1	0	0	0	0
91	MNC	Taidoc Technology Corporation	2 (2)	0	0	1	1	0
92	MNC	Teleflex medical Pvt. Ltd.	3 (3)	0	0	1	2	0
93	Indian	Thaker Brothers	2 (2)	0	0	1	1	0
94	Indian	Uphealthy Medical Devices Pvt Ltd	2 (2)	0	2	0	0	0
95	Indian	Vats Medical Healthcare Pvt Ltd	8 (8)	0	2	4	2	0
96	Indian	Vertech Health Solutions India Pvt Ltd	19 (19)	1	5	5	8	0
97	MNC	VivaChek LifeCare Pvt Ltd	2 (2)	0	2	0	0	0
98	Indian	Warner Electronics Pvt Ltd	2 (2)	0	1	0	1	0
99	Indian	Wellona Medworks Pvt Ltd	5 (5)	0	1	4	0	0
100	Indian	X' Cel Healthcare Products	6 (6)	1	3	2	0	0
101	Indian	Xtracare Products Pvt. Ltd.	2 (2)	0	2	0	0	0
102	MNC	Ypsomed India Pvt Ltd	3 (3)	0	3	0	0	0
103	Indian	Zebronics India Pvt Ltd	2 (3)	1	1	0	0	0
Grand Total			896 (969)	178	255	331	119	13

Source: Office Memorandum, NPPA dated 28 July, 2021; Annexure 2.

Figure 8 represents the top 5 companies based on number of brands reporting downward revision in their prices.

Masimo Medical Technologies India Pvt Ltd (MNC) had the maximum number of brands reporting reduction in MRP due to TMR, with all 52 of its brands reporting price reduction. BPL Medical Technologies Pvt Ltd, Industrial Electronic & Allied Products and Nureca Ltd each had at least 30 brands reporting downward revision in their prices.

Figure 8: Top 5 companies based on the number of brands reporting price reduction due to TMR



4.2.3 Comparison between Indian and Multinational Companies

There were total 105 companies (81 Indian and 24 MNCs) notified under TMR. For both Indian companies and MNCs, the prices were reduced by 40-60% for majority of their brands. However, there were more number of MNC brands reporting a price reduction in the range of 80-100%.

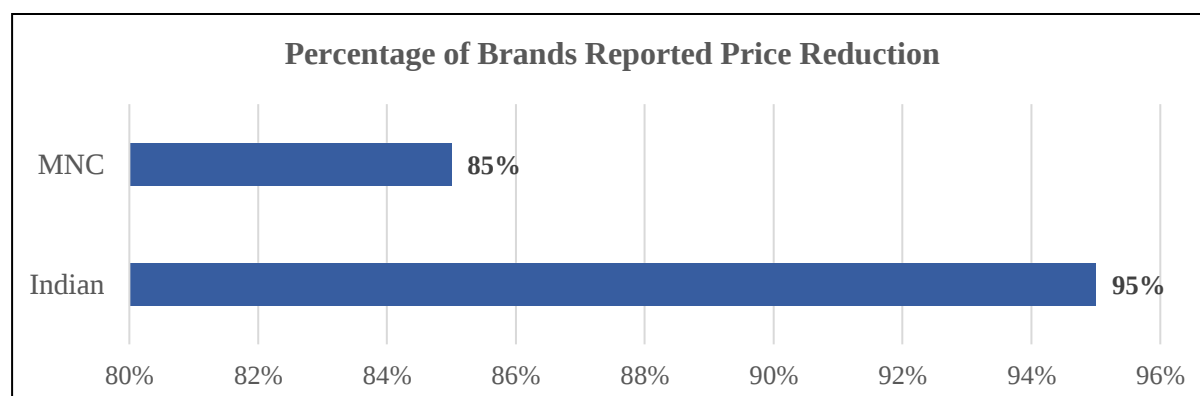
Table 20: Comparison between Indian and MNCs (TMR)

S.No.	Company Type	Number of Companies	Number of Brands Reported Price Reduction	Number of Brands by Percentage Price Reduction				
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %
1	Indian	81	697 (735)	141	211	247	95	3
2	MNC	24	199 (234)	37	44	84	24	10

Source: Office Memorandum, NPPA dated 28 July, 2021.

Figure 8 represents the percentage of brands which reported price reduction after TMR for Indian companies and MNCs. As compared to MNCs, Indian companies had a higher percentage of brands which reported price reduction with MNC having a percentage of 85% and Indian companies having a percentage of 95%.

Figure 9: Percentage of brands reported price reduction after TMR for Indian and MNCs



4.3 Impact Assessment of Price Capping on Medical Devices in India

4.3.1 Interbrand Price Variability

Figure 10 represents the interbrand price variability between the highest priced and lowest priced brands of 3 medical devices (Condom, Hormonal IUD, and IUD Containing Copper) for whom NPPA has fixed ceiling price.

Highest interbrand price variability of 2417% was observed with Condom with a maximum PTR/unit of ₹34.73 and minimum PTR/unit of ₹1.38. Least interbrand price variability of 253% was observed with Hormonal IUD with a maximum PTR/unit of ₹632 and minimum PTR/unit of ₹178.92.

Figure 10: Interbrand price variability of medical devices under price capping

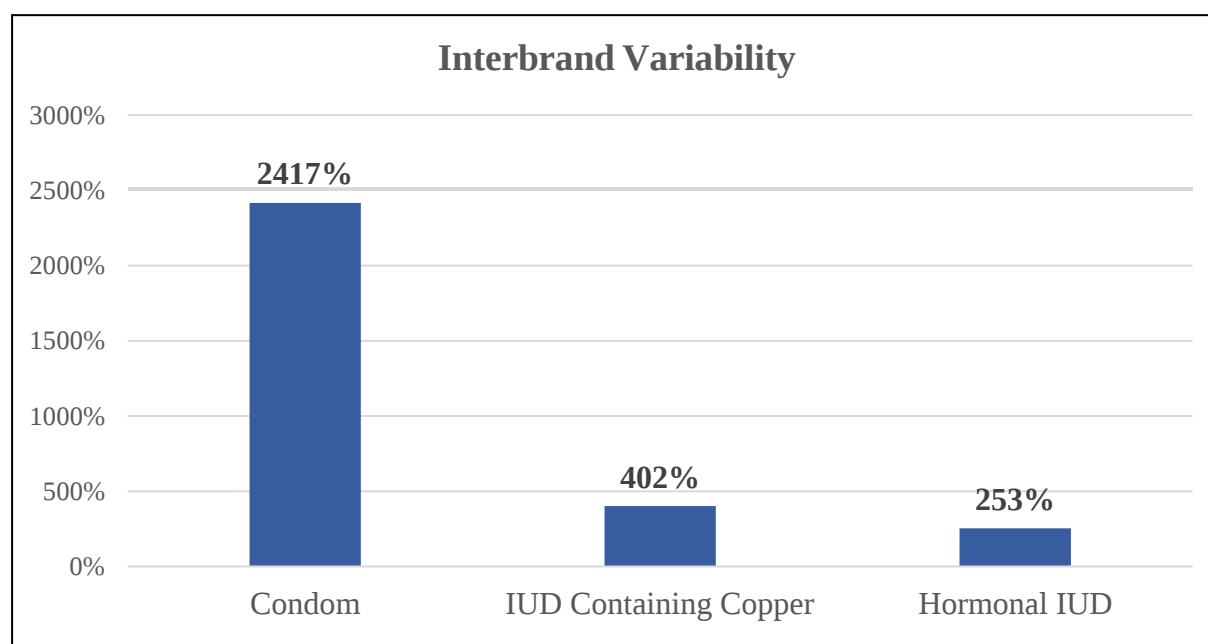


Table 21: Interbrand variability of medical devices under price capping

	Medical Device	Count of Brand	Maximum PTR/unit	Minimum PTR/unit	Interbrand Variability
1	Condom	102	34.73	1.38	2417%
2	IUD Containing Copper	6	481.6	96	402%
3	Hormonal IUD	4	632	178.92	253%

Source: Data obtained through calculations from NPPA worksheets.

4.3.2 Percentage Price Reduction

To determine the impact of price capping on the prices of medical devices, the percentage price reduction for individual brands of medical devices was calculated.

For 3 medical devices included in the study there were 6 companies and a total of 112 brands which were notified under price capping. Out of the total 112 brands there were only 38 (34%) brands which reported a downward revision in their prices. The prices of these brands were reduced by 84-6%.

In the price distribution of medical devices after price capping, it was observed that 74 (66%) brands out of 112 had a PTR lower than the ceiling price imposed by NPPA.

Table 22: Price capping of medical devices

Total Number of Medical Devices	3
Total Number of Companies Notified under Price Capping	6
Total Number of Brands Notified under Price Capping	112
Total Number of Brands Reported Price Reduction	38 (34%)
Maximum Price Reduction	84%
Minimum Price Reduction	6%

Source: Data obtained through calculations from NPPA worksheets; Annexure 3.

Refer to annexure 3 for calculation of percentage price reduction of individual brands of medical devices under price capping.

4.3.2.1 Percentage Price Reduction by Medical Device Category

Figure 11 represents the average price reduction for Condom, Hormonal IUD, and IUD Containing Copper after price capping.

Price capping resulted in an average reduction of 20%, 29% and 29% in the prices of brands of Condom, IUD Containing Copper, and Hormonal IUD respectively.

Figure 11: Average price reduction for medical devices after price capping

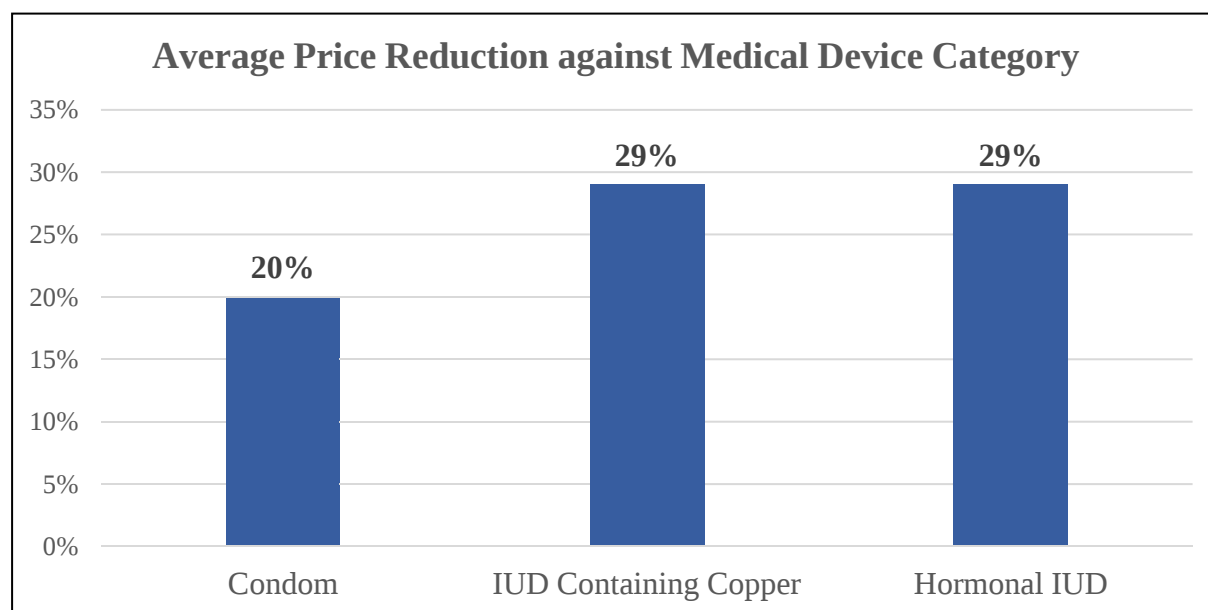


Table 23: Average price reduction for medical devices after price capping

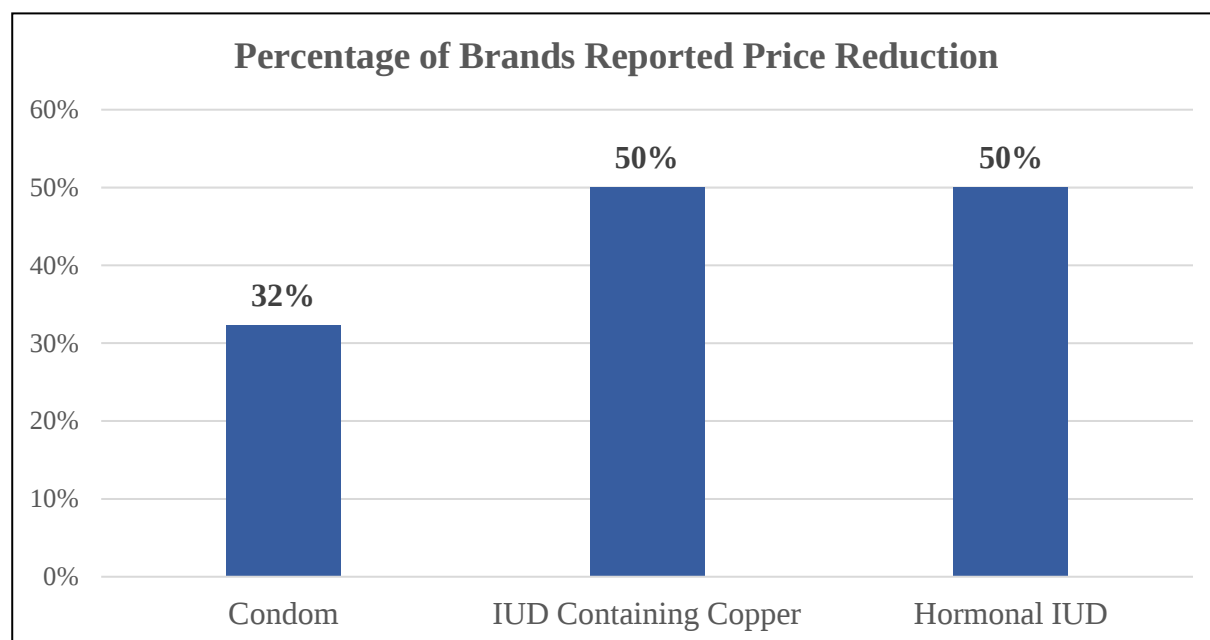
S.No.	Category	Number of Brand	Number of Brand reported Price Reduction	Highest Price Reduction	Average Price Reduction
1	Condom	102	33	84%	20%
2	IUD Containing Copper	6	3	41%	29%
3	Hormonal IUD	4	2	42%	29%

Source: Data obtained through calculations from NPPA worksheets.

Figure 12 represents the percentage of brand which reported price reduction after price capping with respect to the total number of brands for each medical device category.

IUD Containing Copper and Hormonal IUD both had 50% of their total number of brands reporting a downward revision in prices due to price capping. While, Condom had 32% of their total number of brands reporting price reduction (33 brands out of 102 brands).

Figure 12: Percentage of brand reported price reduction by medical device category (Price capping)



4.3.2.2 Most Affected Brands based on Percentage Price Reduction

Figure 13: Top 5 most affected brands by price capping based on percentage price reduction in Rupee and in percentage terms

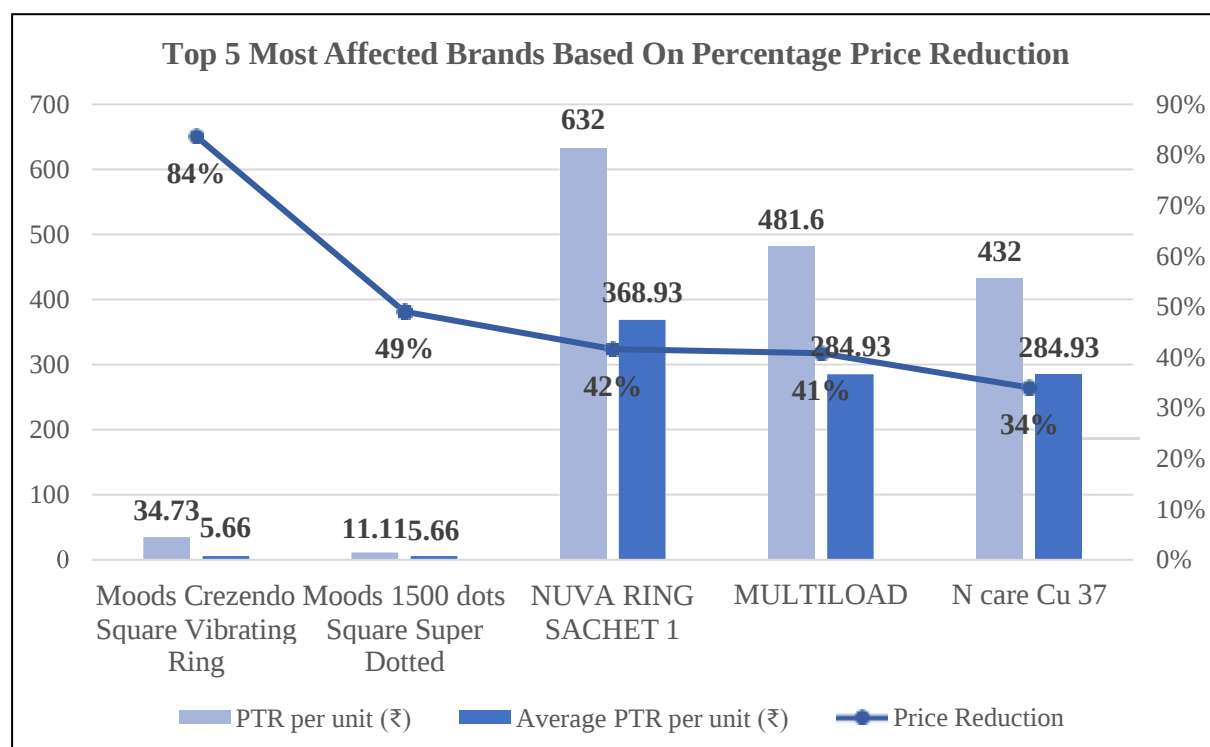


Figure 13 represents the top 5 most affected brands by price capping based on percentage reduction in their prices.

Moods Crezendo Square Vibrating Ring (Condom) of Hindustan Latex Ltd showed the highest percentage of price reduction of 84% with reduction from ₹34.73 PTR/unit before price capping to ₹5.66 PTR/unit after price capping.

Among Hormonal IUDs, Nuva Ring Sachet 1 of Organon had the highest percentage of price reduction of 42% while among IUDs Containing Copper, Multiload of Organon had the highest percentage of price reduction of 34%.

4.3.2.3 Percentage Price Reduction by Medical Device Company

Table 24 represents the range of price reduction for medical devices companies, along with their total number of brands and number of brands reporting price reduction, and number of brands by percentage price reduction.

For most companies, the prices of their brands were reduced by only 0-20% as a result of price capping.

Table 24: Percentage price reduction by medical device company (Price capping)

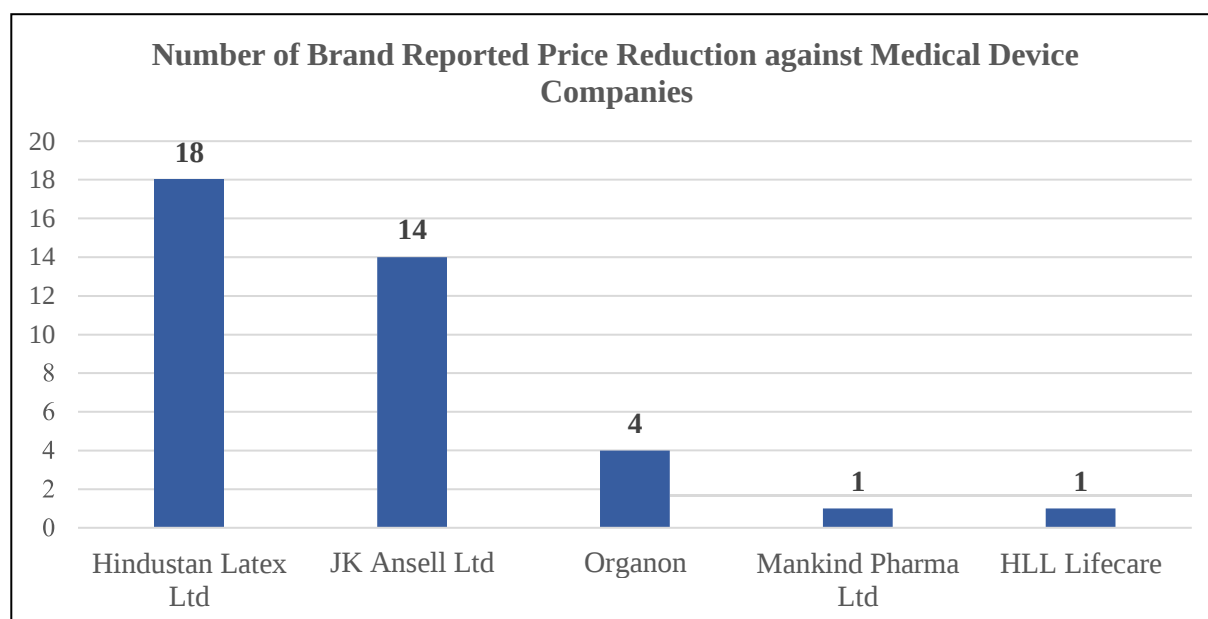
S.No.	Company Type	Company Name	Number of Brands Reported Price Reduction	Number of Brands by Percentage Price Reduction				
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %
1	Indian	Hindustan Latex Ltd	18 (42)	9	7	1	0	1
2	Indian	HLL Lifecare	1 (4)	0	1	0	0	0
3	Indian	JK Ansell Ltd	14 (40)	14	0	0	0	0
4	Indian	Mankind Pharma Ltd	1 (20)	1	0	0	0	0
5	MNC	Organon	4 (5)	2	0	2	0	0
6	Indian	Zydus Cadila	0 (1)	0	0	0	0	0
Grand Total			38 (112)	26	8	3	0	1

Source: Data obtained through calculations from NPPA worksheets

Figure 14 represents the number of brands which reported price reduction due to price capping for each medical device company.

Hindustan Latex Ltd had the highest number of brands which reported price reduction due to price capping with 18 of its brands out of a total of 42 reporting price reduction.

Figure 14: Number of brands reported price reduction by medical device company (Price capping)



Source: Data obtained through calculations from NPPA worksheets

4.3.3 Comparison between Indian and Multinational Companies

There were 6 (5 Indian and 1 MNC) companies which were affected by price capping of Condom, Hormonal IUD, and IUD Containing Copper. Brands of Indian companies reported higher percentages of price reduction as compared to MNC brands.

Table 25: Comparison between Indian and MNCs (Price Capping)

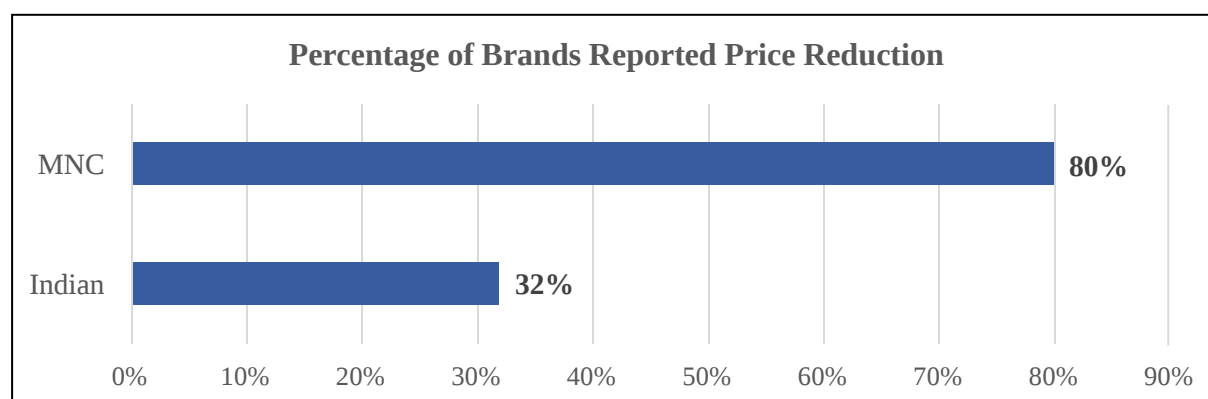
S.No.	Company Type	Number of Companies	Number of Brands Reported Price Reduction	Number of Brands by Percentage Price Reduction				
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %
1	Indian	5	34 (107)	24	8	1	0	1
2	MNC	1	4 (5)	2	0	2	0	0

Source: Data obtained through calculations from NPPA worksheets

Figure 15 represents the percentage of brand which reported price reduction due to price capping with respect to the total number of brands for Indian and MNCs.

For Indian companies 32% of their brands reported price reduction (34 brands out of 107) while for the MNC 4 (80%) out of 5 brands reported price reduction.

Figure 15: Percentage of brand reported price reduction after price capping for Indian and MNC



Source: Data obtained through calculations from NPPA worksheets

4.4 Comparison between Changes in Price of Drug Eluting Stent (DES) with its Usage (2016-2021)

After the price capping of DES in the year 2017 by NPPA, the ceiling price for DES was revised every year for the period of 2017-2021 to account for the changes in Wholesale Price Index (WPI).

Table 26: Revision in prices of Drug Eluting Stent from 2016-2021

Category	Average MRP 2016 (₹)	Ceiling Price in 2017 (₹)	Ceiling Price in 2018 (₹)	Ceiling Price in 2019 (₹)	Ceiling Price in 2020 (₹)	Ceiling Price in 2021 (₹)
Drug Eluting Stents (DES)	121400	29600	27890	30080	30647	30811

Source: Data obtained from NPPA website

The usage of DES for the period 2016-2021 was determined from the Coronary Interventional Registry Data published by National Interventional Council.

Table 27: The Coronary Interventional Registry Data (2016-2021)

Variable	2016	2017	2018	2019	2020	2021
Number of Participating Centers	698	705	709	748	751	-
Number of PCI procedures	373579	387416	438351	493684	355326	401118
Total Stents Used	478770	511389	578164	631915	482778	-
Drug Eluting Stents	454159	494769	567295	627050	474571	537498

Source: The Coronary Interventional Registry Data 2021, National Interventional Council

Figure 16: Comparison between change in price and usage of DES (2016-2021)

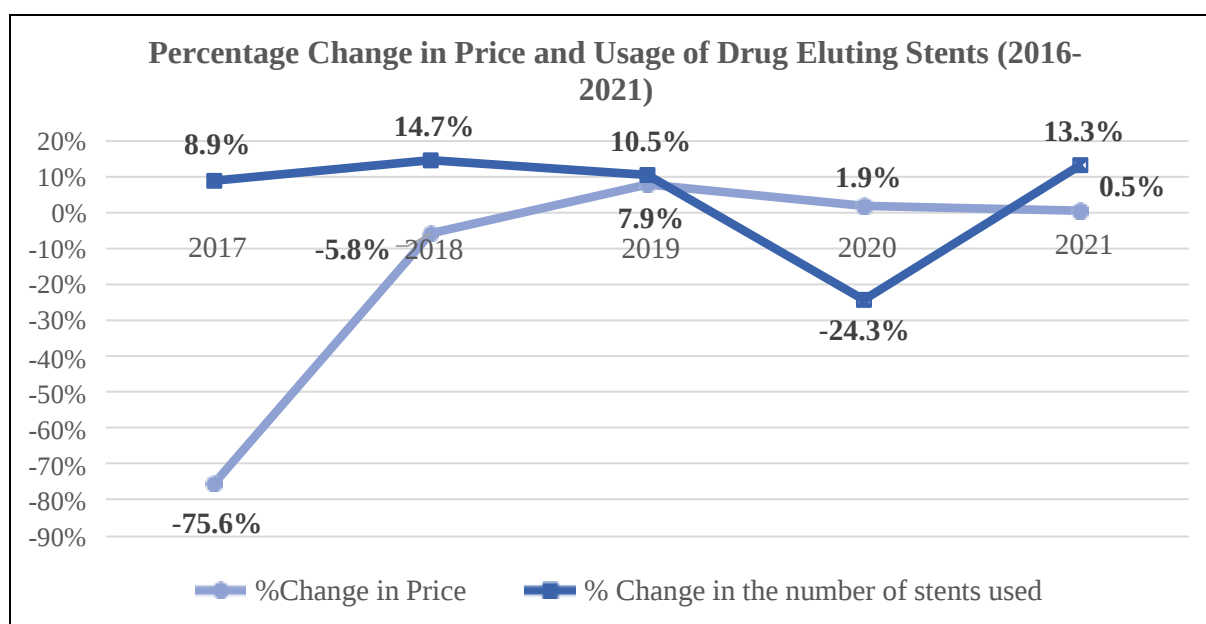


Figure 16 represents the comparison between the percentage changes in the price of DES and percentage change in its usage for the period 2016-2021.

Price capping of DES in 2017 resulted 75.6% reduction in its price. Post price capping, the ceiling price of DES was revised every year by -5.8%, 7.9%, 1.9%, and 0.5% for the period 2017-2021 to account for the changes in Wholesale Price Index.

With the exception of the year 2020, the usage of Drug Eluting Stents increased every year for the period of 2016-2021 by 8.9%, 14.7%, 10.5%, and 13.3%, respectively. The decrease in usage of DES in 2020 could be attributed to the COVID-19 pandemic.

CHAPTER – 5
**SUMMARY OF FINDINGS AND
RECOMMENDATIONS**

CHAPTER 5: SUMMARY OF FINDINGS AND RECOMMENDATIONS

5.1 Key Findings

- Out of 347 medical devices listed by the Central Drugs Standard Control Organization (CDSCO) there were only 12 (3.45%) medical devices which were under some kind of price control.
- NPPA used two different approaches for controlling the prices of medical devices: Price Capping and Trade Margin Rationalisation (TMR) approach.
- There were 6 (Blood Pressure Monitoring Device, Digital Thermometer, Glucometer, Nebulizer, Oxygen Concentrator, and Pulse Oximeter) medical devices under TMR and 6 (Cardiac Stent, Drug Eluting Stent, Hormonal IUD, IUD Containing Copper, Condom, and Orthopaedic Knee Implant) under price capping.
- The price control was limited to the medical devices and did not extend to their accessories and equipment used to assist their functioning or surgical procedure.
- There was a lack of transparency and lack of availability of data regarding the prices of medical devices used for formulating pricing policies. For drug formulations, NPPA releases detailed “price calculation sheets” or “working sheets” describing the calculations and source of data used for the calculation of ceiling price or trade margins. In case of medical devices, NPPA did not provide the calculation of ceiling price or trade margins for 7 (out of 12) medical devices under price control. Also, it did not provide the source of pricing data it used for the calculation of ceiling price or trade margins for 9 (out of 12) medical devices under price control.
- The 5 (Blood Pressure Monitoring Device, Digital Thermometer, Glucometer, Nebulizer, and Pulse Oximeter) medical devices notified under TMR showed an interbrand price variability of more than 1000% with Pulse Oximeter showing the highest interbrand price variability of 198982%. With the exception of Glucometer, all medical devices showed an interbrand price variability of more than 10000%.
- There was no impact of TMR on the interbrand price variability. The interbrand price variability after TMR increased for Blood Pressure Monitoring Device, Nebulizer, and Glucometer by 48%, 264%, and 688% respectively while Pulse Oximeter, and Digital Thermometer reported a decrease in their interbrand price variability by 1% and 28% respectively.
- For 5 medical devices, there were 103 companies and 969 brands which were notified under TMR and their trade margins were capped at 70%. Out of these 969 brands, 896

(92%) brands reported a downward revision in their price after TMR. The prices of these brands were reduced by 40-60% on an average and ranged upto 98%.

- TMR resulted in an average reduction of 41.23%, 41.09%, 40.50%, 37.21%, and 24.95% in the prices of brands of Nebulizer, Pulse Oximeter, Glucometer, Digital Thermometer, and Blood Pressure Monitoring Device respectively.
- Nebulizer had the highest percentage of brands reporting price reduction at 97% with 194 of its brands out of 200 total brands reporting a downward revision in their prices due to TMR. With the exception of Glucometer (80%), all medical devices had at least 90% of their brands reporting price reduction.
- Although Glucometer had the least percentage of brands reporting price reduction, the percentage price reduction in Glucometer brands was the highest. The top 5 most affected brands based on percentage price reduction were Glucometer brands, CareSens N Eco SoloMeter (98%), NoCoding I PlusSolo Meter (95%), CareSens N StarterKit (94%), CareSens Dual BLESolo Meter (92%), and FreeStyle OptiumNeo H Meter Kit (92%). With the exception of Freestyle OptiumNeo H Meter Kit (Abbott Healthcare), all of the top 5 brands belonged to the same company, Isens Biosensors India Pvt Ltd.
- Price reduction of more than 80% was reported in brands of seven companies while there were eight companies whose brands reported no reduction in prices.
- Masimo Medical Technologies India Pvt Ltd had the maximum number of brands reporting reduction in price due to trade margin rationalisation with all 52 of its brands reporting price reduction. BPL Medical Technologies Pvt Ltd, Industrial Electronic & Allied Products and Nureca Ltd each had at least 30 brands reporting downward revision in their prices.
- There were a total 105 companies (81 Indian and 24 MNCs) notified under TMR. There were more number of MNC brands which reported price reduction in the range of 80-100%. However, as compared to MNCs, Indian companies had a higher percentage of brands which reported price reduction with MNC having a percentage of 85% and Indian companies having a percentage of 95% brands reporting price reduction.
- For 3 (Condom, IUD Containing Copper, and Hormonal IUD) medical devices for whom the NPPA has fixed ceiling price, the interbrand price variability was found to be more than 200% with Condom having the highest interbrand price variability of 2417%.

- For the 3 medical devices, there were 6 companies and a total of 112 brands which were notified under price capping by the NPPA. Out of the total 112 brands there were only 38 (34%) brands which reported price reduction. The prices of these brands were reduced by 84-6%.
- Out of 112 brands, it was observed that 74 (66%) brands had a PTR below the ceiling price imposed by NPPA.
- Price capping resulted in an average reduction of 20%, 29% and 29% in the prices of brands of Condom, IUD Containing Copper, and Hormonal IUD respectively.
- IUD Containing Copper and Hormonal IUD had 3 of 6 (50%) and 2 of 4 (50%) brands respectively reporting a downward revision in price due to price capping while Condom had 32% of their brands reporting price reduction (33 brands out of 102).
- In the Condom category, Moods Crezendo Square Vibrating Ring of Hindustan Latex Ltd had the highest percentage reduction in its price of 84%. Among Hormonal IUDs, Nuva Ring Sachet 1 of Organon had the highest percentage of price reduction of 42% while among IUDs Containing Copper, Multiload of Organon had the highest percentage of price reduction of 34%.
- Hindustan Latex Ltd had the highest number of brands which reported price reduction due to price capping with 18 of its brands out of a total of 42 reporting price reduction.
- For the 3 medical devices, there were 6 (5 Indian and 1 MNC) manufacturer or importer firms which were affected by the price capping. For Indian companies 32% of their brands reported price reduction (34 brands out of 107) while for the MNC 4 out of 5 (80%) brands reported price reduction.
- Price capping of Drug Eluting Stents (DES) in 2017 resulted 75.6% reduction in their prices. Following the year 2017, the ceiling price of DES was revised every year by - 5.8%, 7.9%, 1.9%, and 0.5% for the period 2017-2021 to account for the changes in Wholesale Price Index.
- Post price capping of DES, the usage of Drug Eluting Stents increased every year for the period of 2016-2021 by 8.9%, 14.7%, 10.5%, and 13.3%, respectively, with the exception of year 2020 in which the usage decreased by 24.3%. The decrease in usage of DES in 2020 could be attributed to the COVID-19 pandemic.

5.2 Recommendations

- Although NPPA monitors the prices of all medical devices sold in India, the study reported that only 3.45% of the medical devices listed in India are under price control, whether trade margin rationalisation or price capping. The government, therefore, should aim to extend this price control to a wider range of medical devices which are high in demand and/or essential for the diagnosis, prevention, monitoring, treatment or alleviation of serious or life-threatening disease or disorder.
- Most medical devices have accessories and equipment which either assist the functioning of medical devices or are used in the surgical procedure for the implantation of medical device. For example, for the implantation of cardiac stent catheters, balloons, and guide wires are used in the surgical procedure. The price control is only limited to the medical devices and not to its accessories or equipment, thereby creating a gap in price capping. This leads to increased cost of overall procedure for the medical device, despite price control. NPPA, therefore, should consider the overall cost of procedure instead of the cost of medical device while fixating price control.
- The study found that there was a lack of transparency and lack of availability of data regarding the prices of medical devices used for formulating pricing policies. For drug formulations, NPPA releases detailed “price calculation sheets” or “working sheets” describing the calculations and source of data used for calculation of ceiling price or trade margins. In case of medical devices, very little to no data was available in the public domain or was released by NPPA in this context, which was pointed out by the industry. The NPPA should bring about more transparency in its pricing decisions by using verifiable data sources while referring to pricing data and by releasing the detailed price calculation sheets as done with drug formulations.
- Both approaches, trade margin rationalisation and price capping, were able to lower the prices of medical devices but there was no impact on the interbrand variability in the prices of medical devices. Therefore, a re-assessment of pricing policy and its implementation is needed.
- The trade margin rationalisation approach used a fixed percentage of 70% to cap trade margins of medical devices. The World Health Organization’s ‘Guidelines on Country Pharmaceutical Pricing Policies’ recommends that countries should have mark-up policies along with other pricing policies which should allow for the mark-up rate to decrease as the price of the medical device increases rather than using a fixed

percentage mark-up for all prices. NPPA should adopt the WHO's guidelines as this will allow companies to compete in the market and offer better quality products.

- In the study, the price distribution after price capping showed that the prices of only a small percentage of brands were reduced while for most brands the prices were lower than the ceiling price imposed for them. NPPA, therefore, should re-assess the market-based pricing formula used for ceiling price calculation or it should use the cost-based formula as prescribed by DPCO, 1995.

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ANNEXURES

ANNEXURES

Annexure 1: List of medical devices along with their risk class

S.No.	Device Name	Risk Class
Ablation Device		
1	Vein Ablation Device	Class C
2	Thermal Ablation Device	Class C
3	Radiofrequency Ablation Device	Class D
4	Percutaneous Conduction Tissue Ablation	Class D
5	Suction Ablation Catheter System	Class D
6	Uterine balloon therapy devices	Class C
7	RF Conductor MR steerable electrode catheter	Class C
Bone Cements		
8	Bone cement	Class C
Cardiac Stents		
9	Coronary stent	Class D
10	Bioresorbable Vascular Scaffold (BVS) System	Class D
11	Bifurcation Stent	Class C
Catheters		
12	Fiberoptic Oximeter Catheter	Class B
13	A-V Shunt or Fistula Adapter	Class B
14	Trans cervical (Amino scope) Endoscope and accessories	Class B
15	Forceps, endoscopic	Class B
16	Transabdominal (Fetoscope) Amino scope and Accessories	Class C
17	Anaesthetic Conduction Kit	Class C
18	Vena Cava Filter Sets	Class C
19	Vessel Dilator for percutaneous Catheterization	Class B
20	Tracheobronchial Suction Catheter	Class B
21	Cervical Drain	Class B
22	Rectal Balloon	Class B
23	Balloon for Cerebrovascular Occlusion	Class D
24	Intra-Aortic System Balloon and Control	Class D
25	Biliary Stone Retrieval Basker	Class B
26	Tracheostomy Tube/Tracheal Tube	Class B

27	Vial Adapter	Class B
28	Suprapubic, non-disposable Cannula	Class B
29	Nasopharyngeal Catheter/Nasopharyngeal	Class A
30	Esophageal Obturator	Class B
31	Balloon Catheter for Retinal Reattachment	Class B
32	Gastric, Colonic, Irrigation and Aspiration Catheter	Class B
33	Suction Tip and Catheter	Class B
34	Angiographic Catheter	Class B
35	Arterial Catheter	Class B
36	Balloon Type Catheter	Class B
37	Balloon Dilation Vessel Catheter	Class B
38	Bartholin Gland Catheter	Class B
39	Bronchography Catheter	Class B
40	Cholangiography Catheter	Class B
41	Anaesthetic Conduction Catheter	Class B
42	Anaesthesia Conduction Filter	Class C
43	Continuous Flush Catheter	Class B
44	Continuous Irrigation Catheter	Class B
45	Coude Catheters	Class B
46	Depezzzer Catheter	Class B
47	Double Lumen Female Urethrographic Catheter	Class B
48	Epidural Catheter	Class B
49	Esophageal Balloon Catheter	Class B
50	Eustachian Catheter	Class B
51	Guiding Catheter	Class B
52	Haemodialysis Catheter	Class B
53	Central Venous Catheter	Class C
54	Intramuscular Pressure Monitoring Catheter	Class B
55	Introducer Sheath	Class C
56	Intravenous Catheter	Class B
57	Jejunostomy Catheter	Class B
58	Multiple Lumen Catheter	Class B
59	Nasal Oxygen Catheter	Class B
60	Embolic Filter System	Class D

61	Carotid Filter System	Class C
62	Retrieval Snare	Class C
63	Retrieval Snare	Class D
64	Nephrostomy Catheter	Class B
65	Peritoneal Dialysis	Class B
66	Radiographic (Non Vascular) Catheter	Class B
67	Rectal Catheter	Class B
68	Retention Type Catheter	Class B
69	Retention Type Balloon Catheter	Class B
70	Salpynography Catheter	Class B
71	Single Needle Haemodialysis Catheter	Class B
72	Straight Catheter	Class B
73	Subclavian Catheter	Class B
74	Suprapubic Catheter	Class B
75	Umbilical Artery Catheter	Class B
76	Upper Urinary Tract Catheter	Class B
77	Urethral Catheter	Class B
78	Urethrographic Male Catheter	Class B
79	Chorionic Villus Sampling Catheter	Class B
80	Sclerotherapy Needle/Catheter	Class B
81	Water Jet Renal Catheter	Class B
82	Hemodialysis Catheter (Long Term)	Class C
83	Percutaneous Intravascular Long Term Catheter	Class C
84	Percutaneous Long Term Intrapinal Catheter	Class C
85	Implanted Subcutaneous Intravascular Port & Catheter	Class C
86	Subcutaneous Intrapinal Port & Catheter	Class C
87	Peripheral Transluminal Angioplasty Catheter	Class C
88	Cardiac Thermodilution Catheter	Class D
89	Cardiovascular Catheter	Class D
90	Cerebrospinal Catheter	Class D
91	Atherectomy Coronary Catheter	Class D
92	Electrode Recording Catheter	Class D
93	Oximetry Catheter	Class B
94	Embolectomy Catheter	Class D

95	Flow Directed Catheter	Class B
96	Ultrasonic Imaging Catheter	Class B
97	Intraaortic Balloon Catheter	Class D
98	Intracardiac Mapping Catheter	Class D
99	Coronary Dialation Catheter	Class C
100	Intravascular Occluding Catheter	Class D
101	Intravascular Diagnostic Catheter	Class D
102	Occlusion Catheter	Class D
103	Percutaneous Catheter	Class D
104	Diagnostic Radiology Catheter	Class C
105	Perfusion Catheter	Class D
106	Pericardium Drainage Catheter	Class D
107	Atherectomy Peripheral Catheter	Class D
108	Septosomy Catheter	Class D
109	Thrombectomy Catheter	Class D
110	Transluminal Coronary Angioplasty Percutaneous Catheter	Class D
111	Ventricular Catheter	Class C
112	Balloon Repair Kit Catheter	Class C
113	Micro-catheter	Class C
114	Imaging Catheter	Class C
115	CNS Shunt	Class D
116	Endoscopic Ligation Device	Class B
117	Dialysate Tubing and Connector	Class B
118	Urinary Drainage Unit	Class B
119	Tympanostomy Tube	Class C
120	In-Vitro Fertilization/ Embryo Transfer Catheter	Class B
121	Sclerotherapy Needle/Catheter	Class B
122	Fluid Delivery Tubing	Class B
123	Colon Tube	Class B
124	Connecting Tube	Class B
125	Decompression Tube	Class B
126	Double Lumen for Intestinal Decompression and Intubation Tube	Class B
127	Closed Wound Drainage Tube or System	Class B
128	Oesophageal Blakemore Tube	Class B

129	Oesophageal Sengstaken Tube	Class B
130	Feeding Tube	Class B
131	Gasstro-Enterostomy Tube	Class B
132	Gastrointestinal Tube	Class B
133	Heart-Lung Bypass Unit Tube	Class B
134	Levine Tube	Class B
135	NasoGastric Tube/ Ryles Tube	Class B
136	Nephrostomy Tube	Class B
137	Orthodontic Tube	Class B
138	Rectal Tube	Class B
139	Stomach Evacuator (Gastric Lavage) Tube	Class B
140	Tonsil Suction Tube	Class B
141	Tracheal (Endotracheal) Tube	Class B
142	Closed Suction System	Class B
143	Anastomosis Bypass Tube	Class C
144	Endolymphatic Shunt Tube	Class B
145	Orthodontic Guide Wire	Class B
146	Intra-aortic Balloon and Control System	Class D
147	Ventricular Bypass (Assistive)	Class D
148	Catheter Guide Wire	Class D
149	Catheter Guide	Class D
150	Wire	Class C
151	Biliary Stents	Class C
152	Duodenal Stents	Class C
153	Colonic Stent	Class C
154	Pancreatic Stent	Class C
155	Carotid Stent System	Class D
156	Peripheral Stent System	Class C
Contraceptive		
157	Tubal Rings/ Fallopian Rings	Class C
158	Male/Female Condoms	Class C
159	Cu-T	Class D
Disinfectant		
160	Disinfectant	Class B

Disposable Hypodermic Needles		
161	Aspiration Needle	Class B
162	Aspiration and Injection Needle	Class B
163	Insulin Needles/Pen Needles for Insulin	Class B
164	Medication Injector	Class B
165	Biopsy Needle Kit	Class B
166	Angiography Needle	Class B
167	Mammary Biopsy Needle	Class B
168	Blood Collecting Needle	Class B
169	Bone Marrow Needle	Class B
170	Gynaecological Cerclage Needle	Class B
171	Cholangiography Needle	Class B
172	Anaesthetic Conduction Needle	Class B
173	Emergency Airway Needle	Class B
174	Endoscopic Needle	Class B
175	Fistula Needle	Class B
176	Epidural Needle	Class B
177	Gastro-Urology Needle	Class B
178	Single Lumen Hypodermic Needle	Class B
179	Neurosurgical Suture Needle	Class B
180	Oocyte Aspiration Needle	Class B
181	Pneumoperitoneum Simple Needle	Class B
182	Prefillable Glass Barrel with Needle	Class B
Disposable Hypodermic Syringe		
183	Injector Type Actuator Syringe	Class C
184	Aspiration Syringe	Class B
185	Irrigating Syringe	Class B
186	Insulin Syringes	Class B
187	Auto Disable Syringe for Single Use	Class B
188	Traditional Single Use Syringe without Safety Feature	Class B
189	Auto-Disable Syringes for Immunization	Class B
190	Re-use Prevention Syringes for Therapeutic Injections	Class B
191	Sharps Injury Protection Plastic Needle Shield to be added to a Syringe	Class B
Disposable Perfusion Sets		

192	Sharps Injury Blood Administration Kit	Class B
193	Measured Volume IV Set	Class B
194	Transfusion or Perfusion Sets for Single Use	Class B
195	Custom Perfusion Sets for Single Use	Class C
196	Manifolds	Class B
197	3 Way Stop Clock as an Accessory to Perfusion Sets	Class B
198	Y-Connector as an Accessory to Perfusion Sets	Class A
199	IV Flow Regulator	Class B
200	Extentsion Sets	Class B
201	Infusion Pump or Elastometric Infusion Device	Class C
Drug Eluting Stents		
202	Drug Eluting Stent	Class D
Heart Valves		
203	Heart Valve	Class D
Internal Prosthetic Replacements		
204	Tissue Expanders	Class C
205	Bio Patches	Class C
206	Vascular Graft/ Occluders/ Cardiac Patches	Class D
207	Vacular Embolization Device	Class D
208	Voice/Laryngeal Prosthesis	Class C
209	Cardiovascular Prosthetic Devices	Class D
210	Hearing Prosthesis System	Class C
211	Annuloplasty Ring	Class C
212	Total Ossicular Replacement Prosthesis	Class D
213	Ear, Nose and Throat and Facial Synthetic Polymer Material or Implant	Class C
214	Mandibular Implant Facial Prosthesis	Class C
215	Sacclotomy Tack (Cody Tack)	Class C
216	Endolymphatic Shunt	Class C
217	An Endolymphatic Shunt Tube with Valve	Class C
218	Fallopian Tube Prosthesis	Class C
219	Vaginal Stent	Class C
220	Eye Sphere Implant	Class D
221	Keratoprosthesis	Class D
222	Bone Heterograft	Class D

223	Intramedullary Fixation Rod	Class C
224	Endosseous Dental Implant	Class C
225	Dental Implant	Class C
226	Bone Grafting Material	Class C
227	Total Temporomandibular Joint Prosthesis	Class D
228	Glenoid Fossa Prosthesis	Class D
229	Mandibular Condyle Prosthesis	Class D
230	An Interarticular Disc Prosthesis	Class D
231	Penile Inflatable Implant	Class D
232	Artificial Urinary Sphincter Implants	Class C
233	Implanted Mechanical/ Hydraulic Urinary Continence Device	Class C
234	Cochlear Implant	Class D
235	Retinal Implant	Class D
236	Breast Implant	Class C
237	Tracheal Prosthesis	Class C
238	Polymeric Surgical Mesh	Class C
239	Endosseous Dental Implant Abutment	Class C
240	A Testicular Prosthesis	Class D
241	Aneurysm Implant	Class D
Intra Ocular Lenses		
242	Intraocular Lens	Class C
IV Cannulae		
243	Intravenous Cannula	Class B
244	Arterial Cannula	Class B
245	Coronary Artery Cannula	Class B
246	Hemodialysis Cannula	Class B
247	Vena Cava Cannula	Class B
248	Venous Cannula	Class B
249	Ventricular Cannula	Class B
250	AV Shunt Cannula	Class C
251	Cannulact or Lymph Duct	Class B
Orthopaedic Implants		
252	Intra Osseous Fixation Wire	Class B
253	Cortical Fixation Implant	Class C

254	Intervertebal Body Fusion Device	Class C
255	Bone Wire	Class B
256	Bone Cap	Class B
257	Orthopedic Implant & Accessories	Class C
258	Intervertebal Body Fusion Device	Class D
259	Pedicle Screw Spinal System	Class C
260	Ankle Joint Metal/Composite Semi-Constrained Cemented Prosthesis	Class C
261	Ankle Joint Metal/Polymer non-constrained Cemented Prosthesis	Class C
262	Elbow Joint Metal/Polymer Constrained Cemented Prosthesis	Class C
263	Elbow Joint Metal/Polymer Semi-Constrained Cemented Prosthesis	Class C
264	Elbow Joint Radial Polymer	Class C
265	Elbow Joint Humeral Metallic Uncemented Prosthesis	Class C
266	Elbow Joint Humeral Metallic Uncemented Prosthesis	Class C
267	Finger Joint Metal Constrained Uncemented Prosthesis	Class C
268	Finger Joint Metal Constrained Cemented Prosthesis	Class C
269	Finger Joint Polymer Constrained Prosthesis	Class C
270	Hip Joint Metal Constrained Cemented or Uncemented Prosthesis	Class D
271	Hip Joint Metal/Polymer Constrained Cemented or Uncemented Prosthesis	Class D
272	Hip Joint Metal/Metal Semi-Constrained with a Cemented Acetabular Component Prosthesis	Class D
273	Hip Joint Metal/Metal Semi-Constrained with a Uncemented Acetabular Component Prosthesis	Class D
274	Hip Joint Metal/Composite Semi-Constrained Cemented Prosthesis	Class C
275	Hip Joint Metal/Ceramic/Polymer Semi-Constrained Cemented or Nonporous Uncemented Prosthesis	Class C
276	Hip Joint Metal/Polymer/Metal Semi-Constrained Porous-Coated Uncemented Prosthesis	Class C
277	A Knee Joint Femorotibial Metallic Constrained Cemented Prosthesis	Class C
278	Shoulder Joint Metal/Metal or Metal/Polymer Constrained Cemented Prosthesis	Class C
279	Wrist Joint Carpal Lunate Polymer Prosthesis	Class C
280	Wrist Joint Metal/Polymer Semi-Constrained Cemented Prosthesis	Class C
281	Wrist Joint Metal Constrained Cemented Prosthesis	Class C
282	Wrist Joint Polymer Constrained Prosthesis	Class C
283	Wrist Joint Carpal Trapezium Polymer Prosthesis	Class C
284	Wrist Joint Carpal Scaphoid Polymer Prosthesis	Class C

285	Toe Joint Phalangeal Polymer Prosthesis	Class C
286	Toe Joint Polymer Constrained Prosthesis	Class C
287	Shoulder Joint Humeral Metallic Uncemented Prosthesis	Class C
288	Shoulder Joint Glenoid Metallic Cemented Prosthesis	Class C
289	Shoulder Joint Metal/Polymer/Metal Nonconstrained or Semi-constrained Porous-Coated Uncemented Prosthesis	Class C
290	Shoulder Joint Metal/Polymer Semi-constrained Cemented Prosthesis	Class C
291	Shoulder Joint Metal/Polymer Non-constrained Cemented Prosthesis	Class C
292	Knee Joint Tibial Metallic Resurfacing Uncemented Prosthesis	Class C
293	Knee Joint Patellar Metallic Resurfacing Uncemented Prosthesis	Class C
294	Knee Joint Femoral Metallic Resurfacing Uncemented Prosthesis	Class C
295	Knee Joint Patellofemoral Metal/Polymer	Class C
296	Knee Joint Patellofemoral Polymer/Metal/Polymer Semi-Constrained Cemented Prosthesis	Class C
297	Knee Joint Patellofemoral Polymer/Metal/Metal Constrained Cemented Prosthesis	Class C
298	Knee Joint Patellofemoral Polymer/Metal Semi-constrained Cemented Prosthesis	Class C
299	Knee Joint Femoral Metal/Polymer Porous Coated Uncemented Prosthesis	Class C
300	Knee Joint Femoral Metal/Polymer Semi-constrained Cemented Prosthesis	Class C
301	Knee Joint Femoral Metal/Polymer Non-constrained Cemented Prosthesis	Class C
302	Knee Joint Femoral Metal/Polymer Constrained Cemented Prosthesis	Class C
303	Knee Joint Femoral Metal/Polymer Constrained Cemented Prosthesis	Class C
304	Knee Joint Femoral Metal/Composite Semi-Constrained Cemented Prosthesis	Class C
305	Knee Joint Femoral Metal/Composite Non-Constrained Cemented Prosthesis	Class C
306	Knee Joint Femoral Metal/Composite Semiconstrained Resurfacing Cemented Prosthesis	Class C
307	Hip Joint Metal/Polymer or Ceramic/Polymer Semiconstrained resurfacing Cemented Prosthesis	Class C
308	Hip Joint Metal/Metal Semiconstrained with a Cemented Acetabular Component Prosthesis	Class D
309	Hip Joint Metal Constrained Cemented or Uncemented Prosthesis	Class D
310	Hip Joint Metal/Polymer Constrained Cemented or Uncemented Prosthesis	Class D
311	Hip Joint Femoral Metallic Resurfacing Prosthesis	Class D
312	A hip joint femoral metal/polymer cemented or uncemented prosthesis	Class D

313	A Hip Joint Femoral Trunnion-bearing Metal/Polyacetal Cemented Prosthesis	Class D
314	A Hip Joint Femoral Trunnion-bearing Metal/Polyacetal Cemented Prosthesis	Class D
315	A Hip Joint Acetabular Metal Cemented Prosthesis	Class D
316	Hip Joint Femoral Metallic Cemented or Uncemented Prosthesis	Class D
317	Plates, Clippers Screws	Class B
318	Spinal Intervertebral Body Fixation Orthosis	Class C
319	Spinal Interlaminar Fixation Orthosis	Class C
320	Resorbable Calcium Salt Bone Void Filler Device	Class C
321	Smooth or Threaded Metallic Bone Fixation Fastener	Class C
322	Sacroiliac Join Fixation	Class C
323	Cervical Artificial Disc	Class D
Scalp Vein Set		
324	Scalp Vein Set	Class B
Surgical Dressings		
325	Surgical Staples	Class B
326	Surgical Dressings	Class A
327	Surgical Dressings	Class B
328	Cotton, Grudges and Bandages	Class B
329	Sterile Drapes	Class B
330	Wound Dressings/Bacteriostatic Wound Dressings	Class C
331	Casting Tapes/Splint Rolls	Class B
332	Haemostatic Gelatine Sponge/Haemostat	Class C
333	Surgical Dressings	Class C
334	Absorbable Hemostatic Based	Class D
335	Umbilical Occlusion Device	Class A
336	Bolster Suture	Class A
337	Suture Non Absorbable Synthetic	Class C
338	Suture Absorbable	Class C
339	Endovascular Suturing System	Class C
340	Fixation Non-absorbable for Pelvic Use	Class C
341	Tissue Adhesive for the Topical Use	Class C
342	Tissue Adhesive for Non-topical Use	Class D
343	Alcohol Swabs	Class A

344	Ligature Wire	Class B
345	Surgical Sealant	Class B
346	Wound Closure Device	Class B
347	Intracardiac Patch	Class D

Source: CDSCO (2017, November 1). Medical Devices Classification. File No: 29/Misc.13/2017-DC(292). https://cdsco.gov.in/opencms/export/sites/CDSCO_WEB/Pdf-documents/medical-device/Classificationq1.pdf

Annexure 2: Percentage price reduction of medical devices brands under TMR (by category)

S.N o.	Company Name	Brand Name	Old MRP (₹)	Revised MRP (₹)	Price Reduction
Blood Pressure Monitoring Device					
1	A&D Instrument India Pvt Ltd	A&DUA-611	4200	2498	41%
2	A&D Instrument India Pvt Ltd	A&DUA-651	5100	3570	30%
3	A&D Instrument India Pvt Ltd	A&DUA-767SW	8800	5712	35%
4	A&D Instrument India Pvt Ltd	A&DUA-651BLE	15000	8663	42%
5	A&D Instrument India Pvt Ltd	A&DUT-201BLE	8200	6962	15%
6	A&D Instrument India Pvt Ltd	A&DUT-113	699	337	52%
7	A&D Instrument India Pvt Ltd	A&DUM-211	45500	34034	25%
8	A&D Instrument India Pvt Ltd	A&DUM-102A	22500	12252	46%
9	A&D Instrument India Pvt Ltd	A&DTM-2657P	250000	240000	4%
10	A&D Instrument India Pvt Ltd	A&DTM-2440	193000	154224	20%
11	A&D Instrument India Pvt Ltd	A&DUB-351	4900	3570	27%
12	A&D Instrument India Pvt Ltd	A&DUA-551SL	6700	4379	35%
13	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (Z1)	3000	2500	17%
14	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (AU-941F)	4500	4300	4%
15	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (CF155)	2950	2800	5%
16	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (S150)	3300	2700	18%

17	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (MJ701)	3600	3500	3%
18	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (AD761)	10000	7300	27%
19	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (CH155)	2550	2400	6%
20	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (X1)	2750	2600	5%
21	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (X3)	3750	3600	4%
22	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (X9)	25000	16000	36%
23	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (X5)	5500	4600	16%
24	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (X5-BT)	6500	5500	15%
25	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (AC1000)	30000	22000	27%
26	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (GB102)	1750	1600	9%
27	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (GB101)	1250	1100	12%
28	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (GD101)	2500	2300	8%
29	A&R Healthcare Pvt Ltd	Rossmax Blood Pressure Monitor (GD102)	3000	2700	10%
30	Amkay Products Pvt Ltd	AMBP-01	2850	1625	43%
31	Anita Industries	EL-310 Mercury Sphygmomanometer Regular	2850	2320	19%
32	Anita Industries	EL-320 Mercury Sphygmomanometer Deluxe	2950	2410	18%
33	Anita Industries	EL-330 Mercury Sphygmomanometer Wall Model	3150	2740	13%
34	Anita Industries	EL-330 Mercury Sphygmomanometer Stand Model Non Adjustable	4200	3800	10%
35	Anita Industries	EL-360 Mercure Sphygmomanometer Stand Model Adjustable	4400	3990	9%
36	Anita Industries	EL-410 Aneroid Sphygmomanometer Dial Type	1099	760	31%
37	Anita Industries	EL-410S Aneroid Sphygmomanometer Dial	1599	1040	35%

		Type with Basic Stethoscope			
38	Anita Industries	EL-411S Aneroid Mercury Sphygmomanometer Dial Type with Deluxe Stethoscope	1699	1140	33%
39	Ashok Industries	BP Appratus Digital PW 218	2350	1220	48%
40	Ashok Industries	BP Appratus Digital Niscomed PW-215	2350	1330	43%
41	Ashok Industries	BP Appratus Clock Model PW-217	2125	1610	24%
42	Ashok Industries	BP Appratus Dial Type PW-201	1050	540	49%
43	Ashok Industries	BP Appratus Mercury Free PW-216	3150	3080	2%
44	Beurer India Pvt Ltd	BP 26 BP Monitor	3205	2190	32%
45	Beurer India Pvt Ltd	BP 29 BP Monitor	3060	2190	28%
46	Beurer India Pvt Ltd	BP 30 Upper Arm BPM	3060	2190	28%
47	Beurer India Pvt Ltd	BP 27 BP Monitor	3060	2240	27%
48	Beurer India Pvt Ltd	BP 35 BP Monitor	3180	2380	25%
49	Beurer India Pvt Ltd	BP 54 BPM	5715	4950	13%
50	Beurer India Pvt Ltd	BC 28 Wrist Blood Pressure Monitor	2335	1900	19%
51	Beurer India Pvt Ltd	BP 30 Wrist BP Monitor	2560	2190	14%
52	Beurer India Pvt Ltd	BP 32 Wrist Blood Pressure Monitor	2415	2150	11%
53	Beurer India Pvt Ltd	BM 45 Upper Arm BPM	4300	4090	5%
54	Beurer India Pvt Ltd	BM 28 BP Monitor	2780	2760	1%
55	Beurer India Pvt Ltd	BM 28 Upper Arm BPM with Adapter	2780	2760	1%
56	Bharat Enterprises	Bioplus	2999	1610	46%
57	Biomedical Pvt Ltd	Poct	3700	1100	70%
58	Biomedical Pvt Ltd	Poct	3700	1490	60%
59	Biomedical Pvt Ltd	Poct	3500	1375	61%
60	Biomedical Pvt Ltd	Poct	3200	1321	59%
61	Biomedical Pvt Ltd	Poct	3700	1873	49%
62	Biomedical Pvt Ltd	Poct	2800	1300	54%
63	BPL Medical Technologies Pvt Ltd	B12	3800	2380	37%

64	BPL Medical Technologies Pvt Ltd	B15	2800	1850	34%
65	BPL Medical Technologies Pvt Ltd	B11	3200	2270	29%
66	BPL Medical Technologies Pvt Ltd	B10	3600	2720	24%
67	BPL Medical Technologies Pvt Ltd	B18	2400	1660	31%
68	BPL Medical Technologies Pvt Ltd	B9	3000	2270	24%
69	BPL Medical Technologies Pvt Ltd	B1	2900	2190	24%
70	BPL Medical Technologies Pvt Ltd	B16	2400	1730	28%
71	BPL Medical Technologies Pvt Ltd	B3+	2400	1770	26%
72	BPL Medical Technologies Pvt Ltd	Aneroid	1200	990	18%
73	BPL Medical Technologies Pvt Ltd	B20	13200	13200	0%
74	BPL Medical Technologies Pvt Ltd	BT-02	7000	7000	0%
75	BPL Medical Technologies Pvt Ltd	B12	3800	2380	37%
76	BPL Medical Technologies Pvt Ltd	B10	3600	2420	33%
77	BPL Medical Technologies Pvt Ltd	B15	2800	1850	34%
78	BPL Medical Technologies Pvt Ltd	B11	3200	2270	29%
79	BPL Medical Technologies Pvt Ltd	B18	2400	1660	31%
80	BPL Medical Technologies Pvt Ltd	B20	13200	13200	0%
81	Choicemed Technology India Pvt Ltd	Choicemed	3230	1757	46%
82	Choicemed Technology India Pvt Ltd	Choicemed	3570	2401	33%
83	Deluxe Scientific Surgico Pvt Ltd	DESCO	2950	1808	39%
84	Deluxe Scientific Surgico Pvt Ltd	DESCO	2750	1714	38%
85	Disha Instruments and Surgical Industries	Height Adjustable	6700	5064	24%
86	Disha Instruments and Surgical Industries	Digital BP	3400	2094	38%
87	Disha Instruments and Surgical Industries	Antique	3000	2284	24%

88	Disha Instruments and Surgical Industries	Next Generation	3200	2532	21%
89	Disha Instruments and Surgical Industries	Analyst	3100	2437	21%
90	Disha Instruments and Surgical Industries	Altitude	4900	4245	13%
91	Disha Instruments and Surgical Industries	Clock	2400	1942	19%
92	Disha Instruments and Surgical Industries	LED	3600	3237	10%
93	Disha Instruments and Surgical Industries	Dial RX	1100	885	20%
94	Disha Instruments and Surgical Industries	EECO	2100	1904	9%
95	Disha Instruments and Surgical Industries	Clock Stand	4800	4779	0%
96	Disha Instruments and Surgical Industries	LED Stand	5400	5400	0%
97	Elko Surgical & Allied Products LLP	EL-510 Digital BP Monitor	2199	1510	31%
98	Elko Surgical & Allied Products LLP	EL-420 Palm Type Aneroid Sphygmomanometer	1799	1230	32%
99	Enkay Brand Distribution Pvt Ltd	Coronation	2999	1431	52%
100	Enkay Brand Distribution Pvt Ltd	Coronation	2599	1319	49%
101	Enkay Brand Distribution Pvt Ltd	Coronation	2499	1455	42%
102	Enkay Brand Distribution Pvt Ltd	Coronation	1999	1295	35%
103	Entero Healthcare Solutions Pvt Ltd	Carent Digital BP Machine wirh USB Cable (Model 02 Wrist BP)	2999	1622	46%
104	Entero Healthcare Solutions Pvt Ltd	Carent Digital BP Machine wirh USB Cable (Model B96 BP)	3000	1681	44%
105	Entero Healthcare Solutions Pvt Ltd	Carent Digital BP Machine wirh USB Cable (Model B71 BP)	2999	1913	36%
106	Entero Healthcare Solutions Pvt Ltd	Carent Digital BP Machine wirh USB Cable (Model B70 BP)	2999	1977	34%
107	Entero Healthcare Solutions Pvt Ltd	Carent Digital BP Machine wirh USB Cable (Model B91 BP)	2999	1979	34%
108	Entero Healthcare Solutions Pvt Ltd	Carent Digital BP Machine wirh USB Cable (Model B51 BP)	2999	2443	19%

109	Equinox Overseas Pvt Ltd	EQ-BP-101	2990	1926	36%
110	Equinox Overseas Pvt Ltd	EQ-BP-102	3450	3355	3%
111	Glowria INC	Dr. AID	2350	1409	40%
112	Glowria INC	Dr. AID	1200	685	43%
113	Haiden Technology Pvt Ltd	Control D	2499	1571	37%
114	Healthcare Solutins	MedEzia	2900	2086	28%
115	Hicks Thermometers India Ltd	Hicks BK - 1016	3900	2437	38%
116	Hicks Thermometers India Ltd	Hicks DBP-1314	3150	2400	24%
117	Hicks Thermometers India Ltd	Hicks DBP-1334	2400	2200	8%
118	Hicks Thermometers India Ltd	Hicks DBP-1334 with Adapter	2550	2400	6%
119	Hicks Thermometers India Ltd	Hicks DBP-1305	2000	1900	5%
120	Impact Distributors	Yuwell YE8600A	4500	1799	60%
121	Impact Distributors	Yuwell YE680E	10000	8948	11%
122	Impact Distributors	Yuwell Aneroid	1500	764	49%
123	Impact Distributors	Yuwell YE670AR	4750	4042	15%
124	Impact Distributors	Yuwell YE660E	2500	1948	22%
125	Impact Distributors	Yuwell YE660F	2800	2491	11%
126	Impact Distributors	Yuwell Mercurial	2000	1934	3%
127	Industrial Electronic & Allied Products	BPDG 024 Automatic Digital BP (MEM60, AVG, Clock)	3710	1830	51%
128	Industrial Electronic & Allied Products	BPDG541 LED Pearl - On Height Adjustable Stand	8840	8410	5%
129	Industrial Electronic & Allied Products	BPDG241 LED Super DLX (Latex Cuff, ADV, BATT, ADPT)	3950	3525	11%
130	Industrial Electronic & Allied Products	BPDG 534 LCD Oyester - On Height Adjustable Stand	8750	8325	5%
131	Industrial Electronic & Allied Products	BPDG234 LCD Super DLX (Latex Cuff, ADV, BATT, ADPT)	3740	3340	11%
132	Industrial Electronic & Allied Products	BPDG141 LED Deluxe (DLX Cuff, BATT, ADPT)	3770	3370	11%

133	Industrial Electronic & Allied Products	BPDG 134 LCD Deluxe (DLX Cuff, BATT, ADPT)	3630	3240	11%
134	Industrial Electronic & Allied Products	BPDG441 LED Pearl - On Fixed Height Stand	8000	7610	5%
135	Industrial Electronic & Allied Products	BPDG 434 LCD Oyester - On Fixed Height Stand	7910	7525	5%
136	Industrial Electronic & Allied Products	BPMR 150 Stand Model with Adjustable Height (Fabricated Base)	7650	7280	5%
137	Industrial Electronic & Allied Products	BPDG 034 LCD Reg (Velcro Cuff BATT)	3200	2855	11%
138	Industrial Electronic & Allied Products	BPDG 041 LED REG (Velcro Cuff, BATT)	3280	2940	10%
139	Industrial Electronic & Allied Products	BPDG 334 LCD Oyester - Desk Top Model	5900	5610	5%
140	Industrial Electronic & Allied Products	BPDG341 LED Pearl - Desk Top Model	5940	5650	5%
141	Industrial Electronic & Allied Products	BPMR 152 Stand Model with Velcro Cuff	5610	5340	5%
142	Industrial Electronic & Allied Products	BPDL437 Galaxy - Dial Type BP On HT ADJ Stand	5090	4840	5%
143	Industrial Electronic & Allied Products	BPDG537 DFCFNT - Dial Type BP on Fixed HT Stand	4460	4240	5%
144	Industrial Electronic & Allied Products	BPMR 130 Super Deluxe (Auto Deflation Valve, Latex Bag & Bulb)	3680	3495	5%
145	Industrial Electronic & Allied Products	BPMR 142 Wall Regular with Velcro Cuff	3620	3440	5%
146	Industrial Electronic & Allied Products	BPMR 121 Aqua (Metallic Finish)	3470	3295	5%
147	Industrial Electronic & Allied Products	BPMR 115 Mercurial BP with Pediatric Cuff	3530	3355	5%
148	Industrial Electronic & Allied Products	BPMR 120 Deluxe	3440	3270	5%
149	Industrial Electronic & Allied Products	BPMR 111 Regular Model with Normal Cuff	3300	3140	5%
150	Industrial Electronic & Allied Products	BPMR 112 Regular Model with Velcro Cuff	3330	3170	5%
151	Industrial Electronic & Allied Products	BPDG237 Clock Type Dial BP	2160	2055	5%
152	Industrial Electronic & Allied Products	BPDG237 Dial Type BP with Built in Stethoscope (Self Check)	1950	1855	5%
153	Industrial Electronic & Allied Products	BPDG 280 Big D	1425	1355	5%

154	Industrial Electronic & Allied Products	BPDL250 Dial Deluxe with Fixed Calibration Feature	1130	1070	5%
155	Industrial Electronic & Allied Products	BPDL260 Dial Normal with Fixed Calibration Feature	1040	985	5%
156	Industrial Electronic & Allied Products	BPDL270 Dial Velcro with Field Calibration Feature	1050	995	5%
157	Industrial Electronic & Allied Products	BPDL253 Dial Head with Field Calibration Feature	500	470	6%
158	Infinity Mediquip India Pvt Ltd	Blood Pressure Monitoring Device (Model No BSX515)	2800	1490	47%
159	Infinity Mediquip India Pvt Ltd	Blood Pressure Monitoring Device (Model No TMB-1872)	2900	1865	36%
160	Infinity Mediquip India Pvt Ltd	Blood Pressure Monitoring Device (Model No RAK268)	2200	1365	38%
161	Infinity Mediquip India Pvt Ltd	Mercurial Sphygmomanometer (Model No MBP 01)	2375	1900	20%
162	Kannu Impex India Pvt Ltd	BPM 104	2999	1438	52%
163	Kannu Impex India Pvt Ltd	BPM 106	2999	1647	45%
164	Kannu Impex India Pvt Ltd	BPM 107	2999	1463	51%
165	Kannu Impex India Pvt Ltd	BPM 108	3399	1900	44%
166	Kannu Impex India Pvt Ltd	DBPM 101	1299	690	47%
167	Lifeline Medical Devices	Life-Line/ Variant 1	5500	3272	41%
168	Lifeline Medical Devices	BP Monitor Aneroid Chrome Body	1500	819	45%
169	Lifeline Medical Devices	Life-Line/ Variant 2	1050	675	36%
170	Lifeline Medical Devices	Life-Line/ Variant 5	2350	1533	35%
171	Lifeline Medical Devices	Life-Line/ Variant 7	9000	6166	31%
172	Lifeline Medical Devices	Life-Line/ Variant 3	13500	9520	29%
173	Lifeline Medical Devices	Life-Line/ Variant 3 MAX	950	672	29%
174	Lifeline Medical Devices	Citizen / CH-432	2999	2125	29%
175	Lifeline Medical Devices	Life-Line/ Variant 8	9500	6831	28%
176	Lifeline Medical Devices	Life-Line/ Variant 2	3400	2470	27%

177	Lifeline Medical Devices	Life-Line/ Variant 1 Alpha	1100	803	27%
178	Lifeline Medical Devices	Life-Line/ Variant 6	6500	4760	27%
179	Lifeline Medical Devices	Life-Line/ Variant 1 Classic	3500	2611	25%
180	Lifeline Medical Devices	BP Monitor Mercurial Classic	3500	2611	25%
181	Lifeline Medical Devices	Life-Line/ L-3	1900	1454	23%
182	Lifeline Medical Devices	Life-Line/ Variant 3 Alpha	3100	2414	22%
183	Lifeline Medical Devices	Life-Line/ Variant 4 Beta	2850	2311	19%
184	Lifeline Medical Devices	Life-Line/ Variant 2 Desk Model	7000	6315	10%
185	Medi Sales India Pvt Ltd	Maxx Automatic Digital	2499	1950	22%
186	Medequipment (Importer)	Digital BP Apparatus	2550	2550	0%
187	Medsources Ozone Biomedicals Pvt Ltd	Digital Blood Pressure Monitor	2995	1830	39%
188	Medsources Ozone Biomedicals Pvt Ltd	Digital Blood Pressure Monitor	2795	1595	43%
189	Medtech Life Pvt Ltd	BP-Monitor 09N	2650	1496	44%
190	Mehar Healthcare Corporation	Ready Matic MH-737	2499	1197	52%
191	Mehar Healthcare Corporation	Ready Matic MH-787	2399	1295	46%
192	Micro and Nano Technologies	MediLive	3499	1450	59%
193	Micro and Nano Technologies	MediLive	3699	1750	53%
194	Micro and Nano Technologies	MediLive	3799	1850	51%
195	Microgene Diagnostic Systems Pvt Ltd	Accusure TK BP Monitor TMB1112	3500	2100	40%
196	Microgene Diagnostic Systems Pvt Ltd	Accusure Aneroid Sphygmomanometer	1599	1010	37%
197	Microgene Diagnostic Systems Pvt Ltd	Accusure BP Monitor (AS-09)	2999	1580	47%
198	Microgene Diagnostic Systems Pvt Ltd	Accusure as BP Monitor	2499	1540	38%
199	Microgene Diagnostic Systems Pvt Ltd	Accusure TS BP Monitor TMB1112	2995	1840	39%
200	Microgene Diagnostic Systems Pvt Ltd	Accusure BP Monitor TD-1209	2799	1520	46%
201	Microtek International Pvt Ltd	Microtek	2499	1799	28%
202	Morepen Laboratories Ltd	Dr. Morepen BPONE (BP-15)	2599	1300	50%

203	Morepen Laboratories Ltd	Dr. Morepen BPONE (BP-11)	2610	1425	45%
204	Morepen Laboratories Ltd	Dr. Morepen BPONE (BP-16)	2599	1425	45%
205	Morepen Laboratories Ltd	Dr. Morepen Blood Pressure Monitor (BP-12B)	2190	1305	40%
206	Morepen Laboratories Ltd	Dr. Morepen BPONE (BP-09)	2610	1565	40%
207	Morepen Laboratories Ltd	Dr. Morepen Blood Pressure Monitor (BP-14)	2599	1725	34%
208	Morepen Laboratories Ltd	Dr. Morepen Blood Pressure Monitor (BP-02)	2190	1550	29%
209	Morepen Laboratories Ltd	Dr. Morepen Blood Pressure Monitor (BP-01)	1890	1455	23%
210	National Industrial Corporation	BP Apparatus Clock Model PW-217	2125	1730	19%
211	National Industrial Corporation	BP Apparatus Digital Niscomed PW-215	2350	1505	36%
212	National Industrial Corporation	BP Apparatus Digital Niscomed PW-216	3150	2835	10%
213	National Industrial Corporation	BP Apparatus Dial Type PW-291	1050	710	32%
214	National Industrial Corporation	BP Apparatus Digital PW-218	2350	1460	38%
215	Nisco (India)	BP App. Dial Type PW with Stethoscope	1890	783	59%
216	Nisco (India)	BP App. Dial Type PW-201	1050	550	48%
217	Nisco (India)	BP Apparatus Clock Model PW-217	2125	1506	29%
218	Nisco (India)	BP Apparatus Digital Niscomed PW-215	2350	1389	41%
219	Nisco (India)	BP Apparatus Digital Niscomed PW-216	3150	3150	0%
220	Nureca Ltd	Dr. Trust BP Monitor Comfort-121	3750	1600	57%
221	Nureca Ltd	Dr. Trust A One Galaxy BP Monitor-106	3200	1990	38%
222	Nureca Ltd	Dr. Trust Afib Pro BP Monitor-102	3200	3200	0%
223	Nureca Ltd	Dr. Trust Afib Talk BP Monitor-104	4800	4250	11%
224	Nureca Ltd	Dr. Trust Goldline BP Monitor DT-103	4000	2800	30%
225	Nureca Ltd	Dr. Trust BP Smart-101	4000	2950	26%
226	Nureca Ltd	Dr. Trust A One Max Connect BP Monitor-105	4500	2620	42%

227	Nureca Ltd	Dr. Trust Aneroid BP with Stethoscope	1500	1500	0%
228	Nureca Ltd	Dr. Trust BP Icheck Afib-119	3750	2210	41%
229	Nureca Ltd	Dr. Trust BP Icheck Connect-118	3750	2410	36%
230	Nureca Ltd	Dr. Trust BP Comfort Pro-115	4100	1865	55%
231	Nureca Ltd	Dr. Trust Icheck BP Monitor-116	3500	2410	31%
232	Omron Healthcare India Pvt Ltd	HBP-1120-AP	17660	11165	37%
233	Omron Healthcare India Pvt Ltd	HBP-1320-AP	14500	11395	21%
234	Omron Healthcare India Pvt Ltd	HBP 9030	165850	165850	0%
235	Omron Healthcare India Pvt Ltd	HEM 6161 AP	2380	2345	1%
236	Omron Healthcare India Pvt Ltd	HEM 6181 AP	4590	4350	5%
237	Omron Healthcare India Pvt Ltd	HEM 62321 AP	5890	5890	0%
238	Omron Healthcare India Pvt Ltd	HEM 7120 AP	2680	2330	13%
239	Omron Healthcare India Pvt Ltd	HEM 7121 AP	3380	3280	3%
240	Omron Healthcare India Pvt Ltd	HEM 7121J	2690	2345	13%
241	Omron Healthcare India Pvt Ltd	HEM 7124-IN	2690	2310	14%
242	Omron Healthcare India Pvt Ltd	HEM 7131-AP3	5370	5265	2%
243	Omron Healthcare India Pvt Ltd	HEM 7156-AAP	4180	4180	0%
244	Omron Healthcare India Pvt Ltd	HEM 7156-AP	3860	3860	0%
245	Omron Healthcare India Pvt Ltd	HEM 7316T-AP	6990	6990	0%
246	Omron Healthcare India Pvt Ltd	HEM 7600T-AP3	10980	10980	0%
247	Omron Healthcare India Pvt Ltd	HEM 8712-AP	2990	2640	12%
248	Omron Healthcare India Pvt Ltd	HEM 9210T	5000	5000	0%
249	Phoenix Innovative Healthcare Manufacturers Pvt Ltd	HomeAid	2799	1420	49%
250	Rennex Medical	Aneroid Sphygmomanometer	2700	2627	3%

251	Rennex Medical	BPX Plus	2700	2016	25%
252	Rennex Medical	Dial Check Palm Type Aneroid	1900	1370	28%
253	Rennex Medical	Mercuriy Free	3600	3600	0%
254	Rennex Medical	BP-10	2610	1751	33%
255	Rennex Medical	Dialex Aneroid	1000	1000	0%
256	Romsons Group Pvt Ltd	BPX Plus	2700	2016	25%
257	Romsons Group Pvt Ltd	Blood Pressure Monitoring Device	2610	1751	33%
258	Sahyog Wellness	Wrist BP	2595	1581	39%
259	Sahyog Wellness	Arm BP 22-32	2395	1743	27%
260	Sahyog Wellness	Arm BP 22-42	2395	1743	27%
261	Sara Healthcare Pvt Ltd	Sara Care BPM 104	2900	1523	47%
262	Sara Healthcare Pvt Ltd	Sara Care BPM 106	2800	1523	46%
263	Schiller Healthcare India Pvt Ltd	BP 102	160000	160000	0%
264	Schiller Healthcare India Pvt Ltd	BP 200 Plus	300000	300000	0%
265	SD Biosensor Healthcare Pvt Ltd	Standard BP Care	1990	1523	23%
266	SD Biosensor Healthcare Pvt Ltd	Standard BP Care Plus	2950	1523	48%
267	SD Biosensor Healthcare Pvt Ltd	Standard BP Care Comfort	2190	1428	35%
268	Shri Jai Durge International	Albert David Blood Pressure Monitor	2850	1704	40%
269	Silverline Meditech Pvt Ltd	DC 4111	3950	1390	65%
270	Silverline Meditech Pvt Ltd	DC 8111	4250	2150	49%
271	Skytech Medical & Surgical Devices	HeineM-000.09.230 Gamma G5	7909	7059	11%
272	Skytech Medical & Surgical Devices	HeineM-000.09.231 Gamma G5 Sphygmomanometer	7909	7059	11%
273	Skytech Medical & Surgical Devices	HeineM-000.09.232 Gamma G7 Sphygmomanometer	11539	10298	11%
274	Skytech Medical & Surgical Devices	HeineM-000.09.233 Gamma G7 Sphygmomanometer	11539	10298	11%
275	Skytech Medical & Surgical Devices	HeineM-000.09.242 Gamma GP Sphygmomanometer	9779	8727	11%

276	Skytech Medical & Surgical Devices	HeineM-000.09.243 Gamma GP Sphygmomanometer	9779	8727	11%
277	Skytech Medical & Surgical Devices	HeineM-000.09.555 Gamma G5 Sphygmomanometer	10670	9523	11%
278	Skytech Medical & Surgical Devices	HeineM-000.09.554 Gamma G7 Sphygmomanometer	14102	12585	11%
279	Skytech Medical & Surgical Devices	HeineM-000.09.556 Gamma GP Sphygmomanometer	12386	11054	11%
280	Skytech Medical & Surgical Devices	HeineM-000.09.322 Gamma xxl T GP	14058	12546	11%
281	Skytech Medical & Surgical Devices	HeineM-000.09.323 Gamma GP XXL W	14938	13331	11%
282	Skytech Medical & Surgical Devices	HeineM-000.09.326 Gamma XXL S- Sphygmomanometer	29887	26672	11%
283	Skytech Medical & Surgical Devices	HeineM-000.09.325 Gamma XXL R- Sphygmomanometer	18975	16934	11%
284	Skytech Medical & Surgical Devices	HeineM-000.09.327 Gamma XXL WB	14938	13331	11%
285	Spaceage Multiproduct Pvt Ltd	Shikon	3300	1750	47%
286	Thaker Brothers	Doctor's Trust	2610	1340	49%
287	Vats Medical Healthcare Pvt Ltd	Olex M Free	4000	3140	22%
288	Vats Medical Healthcare Pvt Ltd	Olex Oxy Check	2500	1605	36%
289	Vats Medical Healthcare Pvt Ltd	Olex Plus	3500	1778	49%
290	Vertech Health Solutions India Pvt Ltd	Pertecxa BP VHS060	2500	1410	44%
291	Vertech Health Solutions India Pvt Ltd	Pertecxa BP LS-802	2800	2430	13%
292	Wellona Medworks Pvt Ltd (Importer) & Glensmith	Nucleus Blood Pressure Monitor	2750	1618	41%
293	X Cel Healthcare Products	Blood Pressure Monitor	2499	1490	40%
Digital Thermometer					
1	9M Medical System Pvt Ltd	9M MT-301	325	105	68%
2	9M Medical System Pvt Ltd	9M MT- 401	325	105	68%

3	9M Medical System Pvt Ltd	9M MT- 101	325	114	65%
4	9M Medical System Pvt Ltd	9M MT- 301	325	105	68%
5	A&D Instruments India Pvt Ltd	A&DUT-801	3900	2499	36%
6	A&D Instruments Pvt Ltd	Rossmax Thermometer (RA600)	3300	2300	30%
7	A&D Instruments Pvt Ltd	Rossmax Thermometer (TG100)	290	225	22%
8	A&D Instruments Pvt Ltd	Rossmax Thermometer (TG380)	370	360	3%
9	A&D Instruments Pvt Ltd	Rossmax Thermometer (HC700)	6750	4300	36%
10	A&D Instruments Pvt Ltd	Rossmax Thermometer (HA500)	4750	3200	33%
11	Advay Consumer Cre Pvt Ltd	Advay	310	190	39%
12	Advay Consumer Cre Pvt Ltd	Advay	240	150	38%
13	A&R Healthcare Pvt Ltd	AMTH-01	350	125	64%
14	Ashok Enterprises	Infra red Thermometer	4099	3400	17%
15	Ashok Enterprises	Digital Thermometer Niscomed	399	162	59%
16	Beurer India Pvt Ltd	FT 85 Thermometer	3180	2500	21%
17	Beurer India Pvt Ltd	FT-09/1 Thermometer	295	250	15%
18	Beurer India Pvt Ltd	FT013 Thermometer	380	380	0%
19	Beurer India Pvt Ltd	FT-58 Thermometer	2615	2615	0%
20	Beurer India Pvt Ltd	OT 20 Ovulation Thermometer	1170	1170	0%
21	Bharat Enterprises	Bioplus	250	125	50%
22	BPL Medical Technologies Pvt Ltd	Digital Thermometer	250	125	50%
23	BPL Medical Technologies Pvt Ltd	DT-02	240	140	42%
24	BPL Medical Technologies Pvt Ltd	DT-02	240	140	42%
25	Choicemed Technology India Pvt Ltd	Digital Infrared Thermometer	2890	2890	0%
26	Deluxe Scientific Surgico Pvt Ltd	DESCO	450	196.35	56%
27	Deluxe Scientific Surgico Pvt Ltd	DESCO	350	178.5	49%
28	Enkay Brand Distribution Pvt	Coronation	449	168	63%

29	Enkay Brand Distribution Pvt	Coronation	399	123	69%
30	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT4326 Alarm Time 10 sec	650	316	51%
31	Entero Healthcare Solutions Pvt Ltd	Carent Flexi Tip Waterproof Digital Thermometer (PT111A)	425	199	53%
32	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT4335 Alarm Time 30 sec	650	504	22%
33	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT101 Alarm Time 10 sec	249	153	39%
34	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT101 Alarm Time 30 sec	249	153	39%
35	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT101 Alarm Time 60 sec	249	153	39%
36	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer (PT01F)	650	587	10%
37	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer (PT01F)	210	150	29%
38	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT437 Alarm Time 30 sec	195	147	25%
39	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT437 Alarm Time 10 sec	500	479	4%
40	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer DMT437 Alarm Time 30 sec	500	499	0%
41	Entero Healthcare Solutions Pvt Ltd	Carent Digital Thermometer PHX01	249	144	42%
42	Equinox overseas Private Limited	EQ-JXB-195	5000	3471	31%
43	Equinox overseas Private Limited	EQ-JXB-178	5990	4870	19%
44	Equinox overseas Private Limited	EQ-DT-60	210	139	34%
45	Equinox overseas Private Limited	EQ-DT-61	250	179	28%
46	Glowria INC	Dr. AID	340	140	59%
47	Glowria INC	Dr. AID	340	171	50%
48	Glowria INC	Dr. AID	4545	3755	17%
49	Haiden technology Pvt Ltd	Dr. Balance	349	249	29%

50	Haiden technology Pvt Ltd	Control D	249	249	0%
51	Hicks Thermometer (India) Ltd	Hicks DMT-416	270	249	8%
52	Hicks Thermometer (India) Ltd	Hicks DMT-423	270	249	8%
53	Impact Distributors	Yuwell YT-2	8900	3604	60%
54	Impact Distributors	Yuwell YT-1	8000	4869	39%
55	Infinity Mediquip India Pvt Ltd	Non Contact Thermometer	8000	3919	51%
56	Infinity Mediquip India Pvt Ltd	Digital Thermometer Infi (Non Waterproof)(Model no[DT-01)	240	127	47%
57	Infinity Mediquip India Pvt Ltd	Digital Thermometer Infi (Non Waterproof)(Model no[DT-01WP)	280	141	50%
58	Kannu Inpex India Pvt Ltd	KLT 100	299	297.5	1%
59	Kannu Inpex India Pvt Ltd	KLT 101	299	244.8	18%
60	Kannu Inpex India Pvt Ltd	1R 101	2499	1582.7	37%
61	Lifeline Medical Devices	Life Line/ 'Digital'- digital thermometer	299	143	52%
62	Lifeline Medical Devices	Digital Flexi Thermometer	275	171	38%
63	Masimo Medical technologies India Pvt ltd	TIR-1 Thermometer	82500	32725	60%
64	Medi Sales India Pvt Ltd	Maxx Digital Clinical Thermometer	325	230	29%
65	Medi Sales India Pvt Ltd	Maxx Digital Clinical Thermometer	325	120	63%
66	Mediquipments (Importer)	Digital Thermometer Tg100	290	282	3%
67	Medsource Ozone Biomedicals Pvt. Ltd	Ozocheck	290	238	18%
68	Medsource Ozone Biomedicals Pvt. Ltd	Ozocheck	8000	5625	30%
69	Medtech Life Pvt. Ltd.	Medtech	7000	5093	27%
70	Medtech Life Pvt. Ltd.	Medtech	7000	1858	73%
71	Medtech Life Pvt. Ltd.	Digital Thermometer TMP01	295	135	54%
72	Medtech Life Pvt. Ltd.	Digital Thermometer TMP02	351	137	61%
73	Medtech Life Pvt. Ltd.	Digital Thermometer TEMP03	351	117	67%

74	Medtech Life Pvt. Ltd.	Digital Thermometer TEMP05	375	134	64%
75	Microgene Diagnostic Systems Pvt Ltd	Accusure Digital Thermometer (PT-Series)	351	180	49%
76	Microgene Diagnostic Systems Pvt Ltd	Accusure Non Contact Thermometer-ET306	7563	1990	74%
77	Microgene Diagnostic Systems Pvt Ltd	Accusure Digital Thermometer Flexi (MT Series)	351	190	46%
78	Microgene Diagnostic Systems Pvt Ltd	Accusure Non Contact Thermometer- HA650	2669	1980	26%
79	Microgene Diagnostic Systems Pvt Ltd	Accusure Digital Thermometer MT-1027 (MT-Series)	316	170	46%
80	Microgene Diagnostic Systems Pvt Ltd	New Mercury Sphygmomanometer	2795	2120	24%
81	Microgene Diagnostic Systems Pvt Ltd	Accusure Digital Thermometer MT32	351	180	49%
82	Microtek International Pvt. Ltd.	Microtek	299	165	45%
83	Microtek International Pvt. Ltd.	Microtek	1999	1999	0%
84	Morphen Laboratories Limited	Dr. Morphen Digiclassic (MT-111)	190	114	40%
85	Morphen Laboratories Limited	Dr. Morphen Digiflexi (MT-222)	240	187	22%
86	Morphen Laboratories Limited	Dr.Morphen Non Contact Thermometer (NCT-03)	7999	6400	20%
87	Morphen Laboratories Limited	Dr. Morphen Digi Cl. (MT-100)	190	159	16%
88	Morphen Laboratories Limited	Dr. Morphen Non Contact Thermometer (NCT-01)	7999	7000	12%
89	Morphen Laboratories Limited	Dr. Morphen Non Contact Thermometer (NCT-01B)	7999	7160	10%
90	Morphen Laboratories Limited	Dr. Morphen Non Contact Thermometer (NCT-02)	7999	7750	3%
91	National Industrial Corporation	Digital Thermometer Niscomed DT-01	399	170	57%
92	National Industrial Corporation	Infra Red Thermometer	4099	2750	33%
93	Nisco (India)	Digital Thermometer Niscomed DT-01	399	166	58%
94	Nisco (India)	Infra Red Thermometer	4099	2525	38%
95	Nureca Limited	Dr. Trust Digital Thermometer Flexible TIP-604	450	340	24%
96	Nureca Limited	Dr. Trust Digital Thermometer-601	7000	1640	77%

97	Nureca Limited	Dr. trust Infrared Forehead Thermometer-603	7000	2990	57%
98	Nureca Limited	Dr. Trust Non Contact Infrared Thermometer Gun	4650	2175	53%
99	Nureca Limited	Dr. Trust Digital Thermometer Flexible TIP-613	450	450	0%
100	Omcron Healthcare India Private Limited	MC-246-C1	290	245	16%
101	Omcron Healthcare India Private Limited	MC-343F-C1	390	355	9%
102	Omcron Healthcare India Private Limited	MC-720-AP	2990	2620	12%
103	Paramount Surgimed	Infrared Thermometer	1999	1999	0%
104	Phoenix Innovative Healthcare Manufacturer Pvt. Ltd.	Home Aid	299	125	58%
105	Raxon Biomedical	Raxon	252	139	45%
106	Raxon Biomedical	Raxon	2520	1472	42%
107	Rennex Medical	Digital Thermometer	190	142	25%
108	Rennex Medical	Infrared Forehead Thermometer	7200	3427	52%
109	Rennex Medical	Infrared Forehead Thermometer-Jumper	7200	3427	52%
110	Sahyog Wellness	D.TH-SWWTH01	250	126	50%
111	Sahyog Wellness	Infrared	8999	6068	33%
112	Sahyog Wellness	Ear Infrared	2499	1381	45%
113	Sahyog Wellness	D.TH SWWTH02	250	212	15%
114	Sahyog Wellness	D.TH-SWWTH01	250	126	50%
115	Sahyog Wellness	Infrared	8999	6068	33%
116	Sahyog Wellness	Ear Infrared	2499	1381	45%
117	Saify Healthcare and Medi Devices (India) Pvt. Ltd,	Smartcare	399	124	69%
118	Sara Healthcare Pvt. Ltd.	Sara+Care	275	125	55%
119	SD Biosensor Healthcare Pvt. Ltd.	Standard Digital Thermometer	250	209	16%
120	Shri Jai Durge International	Albert David Digital Thermometer	225	142.8	37%
121	Silverline Meditech Pvt Ltd	TP-500	5885	3450	41%

122	Thakre Brothers	Divine Touch	325	106	67%
123	Vats Medical Healthcare Pvt. Ltd.	Olex DT	370	124	66%
124	Vertech Health Solutions India Private Limited	Perfecxa Digital Therm VHS-10	250	170	32%
125	Vertech Health Solutions India Private Limited	Perfecxa Digital Therm VHS-20	300	195	35%
126	Vertech Health Solutions India Private Limited	Perfecxa Digital Therm VHS-30	600	247	59%
127	Vertech Health Solutions India Private Limited	Perfecxa Digital Therm VHS-100	7000	4490	36%
128	Vertech Health Solutions India Private Limited	Perfecxa Digital Therm VHS-190	300	136	55%
129	Vertech Health Solutions India Private Limited	Perfecxa Digital Therm VHS-200	400	160	60%
130	Vertech Health Solutions India Private Limited	Perfecxa Digital Therm VHS-220	5000	1510	70%
131	Wellona Mediworks Pvt. Ltd. (Importe) & Glensmith Labs Pvt. Ltd. (Marketing)	Nucleus Thermometer	195	128.5	34%
132	Xtracare Products Pvt. Ltd.	APT0020 AP Digital Thermometer	220	134.4	39%
133	Xtracare Products Pvt. Ltd.	APT0033 AP Digital Thermometer	220	135.2	39%
Glucometer					
1	Abbott Diabetes Care	FreeStyle Optium Neo H, Meter Kit	1999	169	92%
2	Abbott Healthcare Pvt Ltd	FreeStyle Optium Neo, Meter Kit	2499	1958	22%
3	Abbott Healthcare Pvt Ltd	FreeStyle Libre Pro Reader Kit, mg/dl	5499	5499	0%
4	Abbott Healthcare Pvt Ltd	FS Libre Reader	5499	5499	0%
5	Ascensia Diabetes Care India Pvt Ltd	Contour	1775	870	51%
6	Ascensia Diabetes Care India Pvt Ltd	Contour	2500	1660	34%
7	Ascensia Diabetes Care India Pvt Ltd	Contour	1645	1645	0%
8	B. Braun Medical India Pvt Ltd	Omnitest Blood Glucose Kit	1399	971	31%
9	B. Braun Medical India Pvt Ltd	Omnitest 3BG Test Strip	950	950	0%
10	BioMedical Pvt Ltd	Glucospot	1450	450	69%
11	Genericare	Sugar Track	1799	784	56%
12	Glowria INC	Dr. AID	1750	704	60%

13	Isens Biosensors India Pvt Ltd	CareSens Dual BLE Solo Meter	2450	199	92%
14	Isens Biosensors India Pvt Ltd	CareSens N Eco Solo Meter	1699	40	98%
15	Isens Biosensors India Pvt Ltd	CareSens N Starter Kit	1999	112	94%
16	Isens Biosensors India Pvt Ltd	NoCoding I Plus Solo Meter	1999	103	95%
17	Isens Biosensors India Pvt Ltd	NoCoding I Plus Starter Kit	1999	534	73%
18	Kannu Impex India Pvt Ltd	Element	1990	742	63%
19	Kannu Impex India Pvt Ltd	Glucolab	1990	765	62%
20	Kannu Impex India Pvt Ltd	Gluconeo Lite	1890	741	61%
21	Kannu Impex India Pvt Ltd	Element	699	256	63%
22	Kannu Impex India Pvt Ltd	Glucolab	699	260	63%
23	Kannu Impex India Pvt Ltd	Gluconeo Lite	699	227	68%
24	LifeScan Medical Devices India Pvt Ltd	Meter (One Touch Select Plus Simple)	1390	1390	0%
25	LifeScan Medical Devices India Pvt Ltd	Meter (One Touch Select Verio Flex)	1750	1750	0%
26	LifeScan Medical Devices India Pvt Ltd	Meter (One Touch Select Verio Flex - Combo)	1750	1750	0%
27	Medsource Ozone Biomedicals Pvt Ltd	Ozochek	1649	400	76%
28	Medsource Ozone Biomedicals Pvt Ltd	Ozochek	600	119	80%
29	Medsource Ozone Biomedicals Pvt Ltd	Ozochek	300	270	10%
30	Meril Diagnostic Pvt Ltd	Credo	1099	1099	0%
31	Meril Diagnostic Pvt Ltd	Eximo	1099	1099	0%
32	Meril Diagnostic Pvt Ltd	Credo (1×25 Strips)	450	450	0%
33	Meril Diagnostic Pvt Ltd	Eximo (1×25 Strips)	500	500	0%
34	Microgene Diagnostic Systems Pvt Ltd	Accusure Simple Blood Glu Meter	1495	730	51%
35	Microgene Diagnostic Systems Pvt Ltd	Accusure Sensor Blood Glucose Meter	1499	720	52%
36	Microgene Diagnostic Systems Pvt Ltd	Accusure Blood Glu Meter	1950	700	64%
37	Microgene Diagnostic Systems Pvt Ltd	Accusure Glod Meter Set	1899	1020	46%

38	Microgene Diagnostic Systems Pvt Ltd	Accusure Soul Naked Meter	895	220	75%
39	Microgene Diagnostic Systems Pvt Ltd	Accusure Glu Mtr Naked Meter Pro	795	160	80%
40	Microgene Diagnostic Systems Pvt Ltd	AP10 Blood Glucose Naked Meter	795	175	78%
41	Morepen Laboratories Ltd	Blood Glucose Monitoring System Model No AP001	1590	675	58%
42	Morepen Laboratories Ltd	Dr Morepne Gluco One Glucose Monitor Model BG03	1490	665	55%
43	Morepen Laboratories Ltd	Dr Morepne Gluco One Glucose Monitor Model BG06	899	700	22%
44	Nipro	Nipro Premier Meter S	1555	997	36%
45	Nureca Ltd	Dr Trust USA Gold Standard Glucometer 9002	1800	1200	33%
46	Nureca Ltd	Dr Trust USA Gold Standard Glucometer 9001	1800	1100	39%
47	Nureca Ltd	Dr Trust Glucose Test Strip 9003	1000	1000	0%
48	Peerless Biotech Pvt Ltd	On Call Plus	2200	1199	46%
49	Peerless Biotech Pvt Ltd	On Call Plus	1800	999	45%
50	Peerless Biotech Pvt Ltd	On Call Extra	2400	1299	46%
51	Peerless Biotech Pvt Ltd	On Call Extra	2000	1099	45%
52	Rennex Medical	Romo Check Plus	2375	875	63%
53	RGB Healthcare Pvt Ltd	Beat O - D Nurse SPI	1300	1000	23%
54	RMD Medical	Glucocare Sense	900	638	29%
55	RMD Medical	Glucocare Ultima	900	786	13%
56	RMD Medical	MakeSure	900	755	16%
57	Roche Diabetes Care India Pvt Ltd	Active	1599	1599	0%
58	Roche Diabetes Care India Pvt Ltd	Active	1890	1890	0%
59	Roche Diabetes Care India Pvt Ltd	Guide	2599	2251	13%
60	Roche Diabetes Care India Pvt Ltd	Instant	1549	1549	0%
61	Roche Diabetes Care India Pvt Ltd	Instant-S	1099	1099	0%
62	Roche Diabetes Care India Pvt Ltd	Performa	1990	1990	0%

63	Roche Diabetes Care India Pvt Ltd	Performa	1790	1790	0%
64	SD Biosensors Healthcare Pvt Ltd	Standard Mentor Meter System	2350	1523	35%
65	SD Biosensors Healthcare Pvt Ltd	Standard Mentor Meter Solo	1450	952	34%
66	SD Biosensors Healthcare Pvt Ltd	CodeFree Plus System	1800	1333	26%
67	SD Biosensors Healthcare Pvt Ltd	CodeFree Plus Solo	999	666	33%
68	SD Biosensors Healthcare Pvt Ltd	CodeFree Meter Solo	999	857	14%
69	SD Biosensors Healthcare Pvt Ltd	GlucoNavil GDH Meter Solo	1199	952	21%
70	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit-25S	1290	755	41%
71	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit	750	520	31%
72	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit-25S	525	525	0%
73	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit-25S	1990	666	67%
74	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit-25S	1499	349	77%
75	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Bare	499	249	50%
76	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit	1499	420	72%
77	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Bare	499	340	32%
78	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit	1390	450	68%
79	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Bare	499	300	40%
80	Sensa Core Medical Instrumentation Pvt Ltd	Glucose Meter Kit	999	520	48%
81	Sensa Core Medical Instrumentation Pvt Ltd	Gluco Spark	1290	755	41%
82	Sensa Core Medical Instrumentation Pvt Ltd	Gluco Spark	750	520	31%
83	Sensa Core Medical Instrumentation Pvt Ltd	Gluco Digital	525	525	0%
84	Sensa Core Medical Instrumentation Pvt Ltd	Gluco Sem	1990	666	67%
85	Sensa Core Medical Instrumentation Pvt Ltd	Control D	1499	349	77%
86	Sensa Core Medical Instrumentation Pvt Ltd	Control D	499	249	50%

87	Sensa Core Medical Instrumentation Pvt Ltd	Xpress Gluco	1499	420	72%
88	Sensa Core Medical Instrumentation Pvt Ltd	Xpress Gluco	499	340	32%
89	Sensa Core Medical Instrumentation Pvt Ltd	Gluco Spot	1390	450	68%
90	Sensa Core Medical Instrumentation Pvt Ltd	Gluco Spot	499	300	40%
91	Sensa Core Medical Instrumentation Pvt Ltd	Elizy	999	520	48%
92	Taidoc Technology Corporation	Sugarcheck	1209	660	45%
93	Taidoc Technology Corporation	Sugarcheck	1759	666	62%
94	Vertech Health Solutions India Pvt Ltd	Diabscan Pro Meter 25S	2100	650	69%
95	Vertech Health Solutions India Pvt Ltd	Diabscan Pro Meter	2100	645	69%
96	VivaChek LifeCare Pvt Ltd	VivaChek Eco MK II	1285	857	33%
97	VivaChek LifeCare Pvt Ltd	VivaChek Ino MK II	1855	1238	33%
98	Ypsomed India Pvt Ltd	Mylife Pura X	2100	1500	29%
99	Ypsomed India Pvt Ltd	Mylife Unio	2100	1500	29%
100	Ypsomed India Pvt Ltd	Mylife Aveo	2100	1500	29%
Nebulizer					
1	9 M Medical Sysytem Pvt Ltd	9M Supex	3200	1456	55%
2	9 M Medical Sysytem Pvt Ltd	9M Ultra	2899	1365	53%
3	9 M Medical Sysytem Pvt Ltd	9M Family	2899	1365	53%
4	9 M Medical Sysytem Pvt Ltd	9M Mini	2500	1274	49%
5	A&D Instruments India Pvt Ltd	A&DUN-104	6800	4379	36%
6	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NA-100)	4000	3500	13%
7	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NE-100)	2990	2750	8%
8	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NI60)	5500	4500	18%
9	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NJ00)	3000	3000	0%
10	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NB80)	3600	3400	6%

11	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NL100)	2800	2300	18%
12	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NK1000 3IN 1)	11000	10000	9%
13	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NH60)	6000	4800	20%
14	A&R Healthcare Pvt. Ltd.	Rossmax Nebulizer (NH200)	12000	9200	23%
15	Amkay Products Pvt. Ltd.	AMNEB-01	4200	1450	65%
16	Anita Industries	EL-710 ELKOneb handy nebulizer	2699	1630	40%
17	Anita Industries	EL-720 ELKOneb handy nebulizer	2299	1310	43%
18	Ashok Enterprises	Mesh Nebulizer NE-M01	3150	1850	41%
19	Ashok Enterprises	Nebulizer NB-121	2499	1070	57%
20	Ashok Enterprises	Nebulizer Niscomed NB-119	2499	1210	52%
21	Ashok Enterprises	Nebulizer Spiritus NB-117	3450	1240	64%
22	Ashok Enterprises	Nebulizer NB-122	2499	1433	43%
23	Ashok Enterprises	Nebulizer Ultrasonic	8500	7415	13%
24	Beurer India Pvt. Ltd.	IH 18/1 Nebulizer	3940	2380	40%
25	Beurer India Pvt. Ltd.	IH 21/1 Nebulizer	4505	3240	28%
26	Beurer India Pvt. Ltd.	IH 58 Nebulizer	5955	5330	10%
27	Bharat Enterprise	Bioplus	2600	1425	45%
28	Bharat Enterprise	Bioplus	2400	1285	46%
29	Biomedical Pvt. Ltd.	Nebspot Plus	2710	1340	51%
30	Biomedical Pvt. Ltd.	Nebstand	3000	1610.78	46%
31	Biomedical Pvt. Ltd.	NebBLUE	3700	1808	51%
32	Biomedical Pvt. Ltd.	NebSpot	2350	1250	47%
33	Biomedical Pvt. Ltd.	Poct	3700	2500	32%
34	BPL Medical Technology Pvt. Ltd.	N5	2900	1620	44%
35	BPL Medical Technology Pvt. Ltd.	N4	3400	2210	35%
36	BPL Medical Technology Pvt. Ltd.	N3+	3000	1920	36%
37	BPL Medical Technology Pvt. Ltd.	N10	4200	3120	26%
38	BPL Medical Technology Pvt. Ltd.	N20	4200	3140	25%

39	BPL Medical Technology Pvt. Ltd.	N3	3300	2280	31%
40	BPL Medical Technology Pvt. Ltd.	N4	3400	2210	35%
41	BPL Medical Technology Pvt. Ltd.	N5	2900	1620	44%
42	Choicemed Technology Pvt. Ltd.	CN1M1	2850	1566	45%
43	Choicemed Technology Pvt. Ltd.	CN1M2	3150	1584	50%
44	Choicemed Technology Pvt. Ltd.	CN2A1(NB11)	9450	5617	41%
45	Deluxe Scientific Surgico Pvt Ltd	Desco	2950	1808	39%
46	Doctor Beli Ram and Sons Pvt. Ltd.	Docbell Invest in Your Health (NB-100)	3490	1648	53%
47	Dr. Sayanis Healthcare Pvt. Ltd.	Renewa	2490	1700	32%
48	Enkay Brand Distribution Private Limited	Coronation	2849	1511	47%
49	Enkay Brand Distribution Private Limited	Coronation	2999	1751	42%
50	Entero Healthcare Solutions private limited	Entair Compressor Nebulizer (JK15)	2200	1357	38%
51	Entero Healthcare Solutions private limited	Entair Compressor Nebulizer (JK11)	3499	1942	44%
52	Entero Healthcare Solutions private limited	Entair Compressor Nebulizer (JK17)	3999	2385	40%
53	Entero Healthcare Solutions private limited	Entair Mesh Nebulizer (YS30)	4000	1840	54%
54	Entero Healthcare Solutions private limited	Entair Compressor Nebulizer NEJ01	3499	1624	54%
55	Entero Healthcare Solutions private limited	Entair Compressor Nebulizer EH01	2250	1359	40%
56	Equinox Overseas Pvt. Ltd.	EQ-NL-72	2650	1472	44%
57	Equinox Overseas Pvt. Ltd.	EQ-NL-27	2450	1205	51%
58	Equinox Overseas Pvt. Ltd.	EQ-NL-30	2400	1518	37%
59	Equinox Overseas Pvt. Ltd.	EQ-NL-87	3990	1123	72%
60	Equinox Overseas Pvt. Ltd.	MT-53	2450	1104	55%
61	Glowria INC	Dr.AID	4200	1267	70%
62	Glowria INC	Dr.AID	3600	1238	66%

63	Glowria INC	Dr.AID	4500	2307	49%
64	Haiden Technology Pvt Ltd	Control-D	2999	1352	55%
65	Haiden Technology Pvt Ltd	Control-D	3199	1649	48%
66	Haiden Technology Pvt Ltd	Control-D	2499	1384	45%
67	Haiden Technology Pvt Ltd	Control-D	2499	1434	43%
68	Haiden Technology Pvt Ltd	Control-D	2499	1500	40%
69	Haiden Technology Pvt Ltd	Control-D	2499	1544	38%
70	Haiden Technology Pvt Ltd	Control-D	2499	1571	37%
71	Health Care Solutions	MedEzia	3499	1724	51%
72	Health Care Solutions	MedEzia	2900	1283	56%
73	Health Care Solutions	MedEzia	2900	1430	51%
74	Hicks Thermometer India Ltd	Hicks NEB-220	3200	1925.22	40%
75	Hicks Thermometer India Ltd	Hicks NEB-150	3700	2654.89	28%
76	Hicks Thermometer India Ltd	Hicks NEB-150	3500	2513.08	28%
77	Hicks Thermometer India Ltd	HM Pro	3150	1912	39%
78	Hicks Thermometer India Ltd	HM Misty Neb	2650	1437	46%
79	I Trust Care	MR GR8	3199	1523.2	52%
80	Impact Distributors	Yuwell 402C	7500	5286	30%
81	Impact Distributors	Yuwell 403H	8800	7801	11%
82	Impact Distributors	Yuwell 405A	3000	2422	19%
83	Impact Distributors	Yuwell 405B	3000	2447	18%
84	Impact Distributors	Yuwell 403K	3700	3331	10%
85	Impact Distributors	Yuwell 402B	5200	5144	1%
86	Impact Distributors	Yuwell M102	3500	3500	0%
87	Infinity Mediquip India Private Limited	Nebulizer (Model NO-CN 03)	2400	1270	47%
88	Infinity Mediquip India Private Limited	Nebulizer Micro (Model NO-CN 05)	1600	1092	32%
89	Infinity Mediquip India Private Limited	Nebulizer (Model NO-CN 01)	2700	1675	38%
90	Infinity Mediquip India Private Limited	Nebulizer (Model NO-CN 02) Compact	2350	1300	45%

91	Infinity Mediquip India Private Limited	Nebulizer Kit Adult	340	61	82%
92	Infinity Mediquip India Private Limited	Nebulizer Kit Pediatric	340	59	83%
93	Infinity Mediquip India Private Limited	Reusable Nebulizer Kit	340	111	67%
94	Infinity Mediquip India Private Limited	Portable Mesh Nebulizer	3500	2962	15%
95	Kannu Impex Private India Ltd.	NEB101	2999	1285.2	57%
96	Kannu Impex Private India Ltd.	NEB102	3999	1507.9	62%
97	Kannu Impex Private India Ltd.	NEB 102 B	3499	1521.5	57%
98	Kannu Impex Private India Ltd.	NEB 103	2999	1292	57%
99	Kannu Impex Private India Ltd.	NEB 106	2999	1271.6	58%
100	Kannu Impex Private India Ltd.	NEB 107	2999	1329.4	56%
101	Kannu Impex Private India Ltd.	NEB 105	2999	1009.8	66%
102	Lifeline Medical Devices	Life-Line/ Variant 1: 'Alpha'- Piston Compressor Nebulizer	2650	1343	49%
103	Lifeline Medical Devices	Life-Line/ Variant 3: 'Gamma'- Piston Compressor Nebulizer	2250	1198	47%
104	Lifeline Medical Devices	Life-Line/ Variant 4: 'Mini'- Piston Compressor Nebulizer	2150	1231	43%
105	Medquipments	Nebulizer Na100	4000	3511	12%
106	Medquipments	Nebulizer Nb500	4500	4500	0%
107	Medquipments	Nebulizer Ne100	2990	2833	5%
108	Medsources Ozone Biomedicals Pvt. Ltd.	Ozocheck	2900	1875	35%
109	Medsources Ozone Biomedicals Pvt. Ltd.	Ozocheck	2400	1485	38%
110	Medtech Life Pvt. Ltd.	Nebulizer Handyneb Classic	2750	1335	51%
111	Medtech Life Pvt. Ltd.	Nebulizer Handyneb Gold	2650	1516	43%
112	Medtech Life Pvt. Ltd.	Nebulizer Handyneb Nupro	2950	1677	43%
113	Medtech Life Pvt. Ltd.	Nebulizer Handyneb Smart	2900	1477	49%
114	Medtech Life Pvt. Ltd.	Nebulizer Handyneb Super	2825	1387	51%

115	Mehar Healthcare Corporation	Ready Mist	3999	2394	40%
116	Mehar Healthcare Corporation	Ready Neby ND	2499	1399	44%
117	Mehar Healthcare Corporation	Ready Neby	2499	1680	33%
118	Mehar Healthcare Corporation	Ready Hospy	8999	8999	0%
119	Micro and Nano Technologies	Meditive	2499	1399	44%
120	Micro and Nano Technologies	Meditive	2499	1680	33%
121	Micro and Nano Technologies	Meditive	2999	1850	38%
122	Microgene Diagnostic Sysytems Pvt Ltd	Accusure SI Nebulizer	2595	1330	49%
123	Microgene Diagnostic Sysytems Pvt Ltd	Accusure Fm Nebulizer	2495	1360	45%
124	Microgene Diagnostic Sysytems Pvt Ltd	Accusure MI Nebulizer	2750	1460	47%
125	Microgene Diagnostic Sysytems Pvt Ltd	Accusure XI Nebulizer	2950	1690	43%
126	Morepen Laboratories Limited	Dr. Morphen Nebulizer (CN06)	2850	1959	31%
127	Morepen Laboratories Limited	Dr. Morphen Nebulizer (CN10)	2250	1449	36%
128	Nareena Lifesciences Private Limited	Nebuliser Machine Gold	5100	1597	69%
129	Nareena Lifesciences Private Limited	Nebuliser Machine Comfort	3700	1253	66%
130	Nareena Lifesciences Private Limited	Nebuliser Machine Silver	4500	1424	68%
131	National Industrial Corporation	MESH NEBULIZER NE-M01	3150	2565	19%
132	National Industrial Corporation	Nebulizer Niscomed NB-119	2499	1220	51%
133	National Industrial Corporation	Nebulizer Niscomed Spiritus NB-117	3450	1365	60%
134	National Industrial Corporation	Nebulizer Niscomed NB-121	2499	1285	49%
135	National Industrial Corporation	Nebulizer Ultrasonic	8500	6915	19%
136	Nisco (India)	MESH NEBULIZER NE-M01	3150	2055	35%
137	Nisco (India)	Nebulizer NB-121	3450	1214	65%
138	Nisco (India)	Nebulizer NE-122	2499	1210	52%
139	Nisco (India)	Nebulizer Niscomed Spiritus NB-117	3450	1168	66%

140	Nisco (India)	Nebulizer Niscomed NB-119	2499	1114	55%
141	Nisco (India)	Nebulizer Ultrasonic	8500	6663	22%
142	Nureca India	Bestest Neb Plus-405	3500	1910	45%
143	Nureca India	Dr. Trust Bestest Compressor nebulizer-401	3100	1550	50%
144	Nureca India	Dr. Trust Compressor Handy Nebulizer With Flow Adjustor-402	2900	1650	43%
145	Nureca India	Dr. Trust Compressor Handy Nebulizer With Flow Adjustor-407	3100	1500	52%
146	Nureca India	Dr. Trust Junior Chilly Billy Compressor Nebulizer (Penguin)-403	4000	1775	56%
147	Nureca India	Dr. Trust Mesh Nebulizer-406	9000	2835	69%
148	Nureca India	Dr. Trust Portable Mesh Nebulizer-404	9000	2835	69%
149	Omcron Healthcare India Private Limited	NE-C900-AP	8670	8515	2%
150	Omcron Healthcare India Private Limited	NE-U100-AP	10900	8985	18%
151	Omcron Healthcare India Private Limited	NE-C310-AP	6990	6430	8%
152	Omcron Healthcare India Private Limited	NE-C28-C1	3690	3430	7%
153	Omcron Healthcare India Private Limited	NE-C101-AP	2999	2380	21%
154	Omcron Healthcare India Private Limited	NE-C803-AP	2880	2665	7%
155	Omcron Healthcare India Private Limited	NE-C106-AP	2560	1820	29%
156	Omcron Healthcare India Private Limited	NE-U780-AP	36380	36045	1%
157	Philips India Ltd.	Home Neb	2620	2620	0%
158	Philips India Ltd.	Essence	3000	3000	0%
159	Phoenix Innovative Healthcare Manufacturers Pvt. Ltd.	Home Aid	2499	1425	43%
160	Poly Medicure Ltd.	Polymed	3199	1495	53%
161	Raxon biomedical	Raxneb Micro	2650	1353	49%
162	Raxon biomedical	Raxneb RN07	2700	1439	47%
163	Rennex Medical	Portneb	5400	2132	61%

164	Rennex Medical	Nebulizer Compressor Machine with accessories	6300	3046	52%
165	Rennex Medical	Maxair	3900	1614	59%
166	Rennex Medical	Angel	3740	1614	57%
167	Rennex Medical	Aeromac Plus+	3400	1614	53%
168	Rennex Medical	Microgen	3400	1614	53%
169	Rennex Medical	Microgen Plus Nebulizer	3400	1614	53%
170	Rennex Medical	Turbo- The Bear Nebulizer	3400	1888	44%
171	Romsons Group Private Limited	Angel	3740	1614	57%
172	Romsons Group Private Limited	Maxair	3900	1614	59%
173	Sahyog Wellness	MY520A Ultra Port	2595	1499	42%
174	Sahyog Wellness	YS31 Port. Travmesh	3955	2435	38%
175	Saify Healthcare and Medi devices (india) Pvt. Ltd.	Eco Smart	2500	1495	40%
176	Saify Healthcare and Medi devices (india) Pvt. Ltd.	Smartcase	9990	7450	25%
177	Sara haelthcare Private Limited	Neb-108 Ultrasonic Mesh Nebulizer	4400	2435	45%
178	Sara haelthcare Private Limited	Neb-102 Smartneb Nebulizer	3500	1495	57%
179	Sara haelthcare Private Limited	Neb-101 Smartneb Nebulizer	3200	1428	55%
180	SD Biosensor Healthcare Pvt. Ltd.	Standard Nebcare	2800	2285	18%
181	Shri Jai Durge International	Albert David Nebulizer	2850	1618	43%
182	Silverline Meditech Pvt. Ltd.	NEC-240	3450	1385	60%
183	Silverline Meditech Pvt. Ltd.	NEC-440	12000	8320	31%
184	Silverline Meditech Pvt. Ltd.	Intermesh40	8350	3330	60%
185	Teleflex medical Pvt. Ltd.	Hudson RCI Micro Mist Nebulizer 1882	216	88	59%
186	Teleflex medical Pvt. Ltd.	Hudson RCI Micro Mist Nebulizer 1884	279	93	67%
187	Teleflex medical Pvt. Ltd.	Hudson RCI Micro Mist Nebulizer 1886	279	93	67%
188	Vats Medical healthcare Pvt. Ltd.	Olex Neb	3150	1351	57%

189	Vats Medical healthcare Pvt. Ltd.	Oxy Neb	2250	1150	49%
190	Vats Medical healthcare Pvt. Ltd.	Olex Choice	2950	1290	56%
191	Vertech Health Solutions India Pvt. Ltd.	Perfecxa Nebulizer VSH080	2500	1600	36%
192	Vertech Health Solutions India Pvt. Ltd.	Perfecxa Nebulizer VSH0210	3090	1500	51%
193	Vertech Health Solutions India Pvt. Ltd.	Perfecxa Nebulizer CN116	2500	1590	36%
194	Wellona Mediworks Pvt. Ltd. (Importer) and Glensmith Labs Pvt. Ltd. (Marketing)	Glensmith Premium Nebulizer	4200	1865.9	56%
195	Wellona Mediworks Pvt. Ltd. (Importer) and Glensmith Labs Pvt. Ltd. (Marketing)	Nucleus Nebulizer	2850	1523.2	47%
196	X' Cel Healthcare Products	Nebulizer N8001	2999	1699	43%
197	X' Cel Healthcare Products	Nebulizer N8002	3599	2015	44%
198	X' Cel Healthcare Products	Nebulizer N8006	2499	1570	37%
199	X' Cel Healthcare Products	Nebulizer N990	2199	1325	40%
200	X' Cel Healthcare Products	Nebulizer YS30	2999	2715	9%
Pulse Oximeter					
1	A&R Healthcare Pvt Ltd	Rossmax Pulse Oximeter (SB200)	7500	5600	25%
2	A&R Healthcare Pvt Ltd	Rossmax Pulse Oximeter (SB100)	4500	3400	24%
3	A&R Healthcare Pvt Ltd	Rossmax Pulse Oximeter (SB300)	45000	40000	11%
4	Amkay Products Pvt Ltd	AMPO-01	4990	1550	69%
5	Andhra Surgical Emporium	Drive DeVibiss HBO Smart	3999	3883	3%
6	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-50D	2499	1545	38%
7	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-95	2499	1025	59%
8	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-94	2499	1240	50%
9	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-96	2499	1308	48%
10	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-101	2499	1332	47%

11	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-99	2499	1522	39%
12	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-91	2499	1640	34%
13	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-92 Pediatric	3500	2695	23%
14	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-93	2499	1715	31%
15	Ashok Enterprises	Finger Tip Pulse Oximeter FPO-97	2499	1907	24%
16	Ashok Enterprises	Finger Tip Pulse Oximeter 50 QB	3150	2850	10%
17	Ashok Enterprises	Hand Held Pulse Oximeter 60C	11500	10310	10%
18	Ashok Enterprises	Hand Held Pulse Oximeter 60D	13100	11880	9%
19	Ashok Enterprises	Table Top Pulse Oximeter CMS-70A	24500	24500	0%
20	ASIO Healthcare Private Limited	ASIO A-5	2850	1392	51%
21	ASIO Healthcare Private Limited	ASIO A-3	2850	1642	42%
22	ASIO Healthcare Private Limited	ASIO T-3	3400	2231	34%
23	ASIO Healthcare Private Limited	ASIO Y-5	2850	1731	39%
24	ASIO Healthcare Private Limited	ASIO B-5	2850	1944	32%
25	Beurer India Pvt Ltd	PO 35 Pulse Oximeter	3580	2190	39%
26	Beurer India Pvt Ltd	PO 30 Pulse Oximeter	3560	2380	33%
27	Beurer India Pvt Ltd	PO 60 Pulse Oximeter	5840	5840	0%
28	Beurer India Pvt Ltd	PO 80 Pulse Oximeter	11225	9520	15%
29	Bharat Enterprises	Bioplus	2999	1395	53%
30	Biomedical Pvt Ltd	POCT	4150	1275	69%
31	Biomedical Pvt Ltd	POCT	3520	1100	69%
32	Biomedical Pvt Ltd	POCT	3700	1350	64%
33	BPL Medical Technologies Pvt Ltd	BPL Loxy	5150	4270	17%
34	BPL Medical Technologies Pvt Ltd	BPL Smart Oxy 04	2600	1950	25%
35	BPL Medical Technologies Pvt Ltd	Pulse Oxy 02	2600	2160	17%
36	BPL Medical Technologies Pvt Ltd	Smart Oxy Lite	2800	2500	11%

37	BPL Medical Technologies Pvt Ltd	BPL SmartOxy	3375	3180	6%
38	BPL Medical Technologies Pvt Ltd	IOXY	5150	4270	17%
39	Choicemed Technology India Pvt Ltd	MD300C20 (Big Box)	3999	1294	68%
40	Choicemed Technology India Pvt Ltd	MD 300C29	3950	1696	57%
41	Choicemed Technology India Pvt Ltd	MD 300C29LCD Screen + B&W Model	3450	1314	62%
42	Choicemed Technology India Pvt Ltd	MD 300CN356	3750	1689	55%
43	Choicemed Technology India Pvt Ltd	MD 300C53	4230	2299	46%
44	Choicemed Technology India Pvt Ltd	500DL	3450	1548	55%
45	Choicemed Technology India Pvt Ltd	MD 300C63	4650	2788	40%
46	Choicemed Technology India Pvt Ltd	MD 300C20	3450	1862	46%
47	Choicemed Technology India Pvt Ltd	MD 300C15D LCD Screen + B&W Model	2910	1552	47%
48	Choicemed Technology India Pvt Ltd	MD 300C2D	3180	1841	42%
49	Choicemed Technology India Pvt Ltd	MD 300C2	4150	2934	29%
50	Choicemed Technology India Pvt Ltd	MD 300CN340	3250	2682	17%
51	Choicemed Technology India Pvt Ltd	MD 300CN330	18500	13328	28%
52	Choicemed Technology India Pvt Ltd	MD300M	26000	25364	2%
53	Choicemed Technology India Pvt Ltd	MD2000A	30000	30000	0%
54	Choicemed Technology India Pvt Ltd	MD2000B	67500	57120	15%
55	Doctor Bell Ram and Sons Pvt Ltd	Docbel Invest In Your Health	3990	1562	61%
56	Doctor Bell Ram and Sons Pvt Ltd	Docbel Invest In Your Health	3790	1525	60%
57	Doctor Bell Ram and Sons Pvt Ltd	Renewa	2490	1007	60%
58	Doctor Bell Ram and Sons Pvt Ltd	BMC	3400	1171	66%
59	Doctor Bell Ram and Sons Pvt Ltd	EL-560 Finger Tip Pulse Oximeter	3499	2000	43%
60	EMCO Meditek Pvt Ltd	Pulse Oximeter oxi-sat 610	31500	31500	0%

61	EMCO Meditek Pvt Ltd	Pulse Oximeter oxi-sat 1020	34650	34650	0%
62	EMCO Meditek Pvt Ltd	Pulse Oximeter oxi-sat 1060	37800	37800	0%
63	EMCO Meditek Pvt Ltd	Pulse Oximeter oxi-sat 2060	40950	40950	0%
64	Entero Healthcare Solutions Pvt Ltd	Finger Pulse Oximeter Contec CMS-50D	3999	1428	64%
65	Entero Healthcare Solutions Pvt Ltd	Finger Pulse Oximeter	2599	980	62%
66	Entero Healthcare Solutions Pvt Ltd	Carent Pulse Oximeter CMS 50N	2999	1870	38%
67	Entero Healthcare Solutions Pvt Ltd	Jumper Pluse Oximeter JPD500E	3999	2926	27%
68	Entero Healthcare Solutions Pvt Ltd	Carent Pulse Oximeter CMS 50D	2599	1547	40%
69	Entero Healthcare Solutions Pvt Ltd	Jumper Pluse Oximeter JPD500A	3000	2232	26%
70	Equinox Overseas Private Limited	EQ-OP-109	3800	1275	66%
71	Equinox Overseas Private Limited	EQ-OP-106	3400	1393	59%
72	Equinox Overseas Private Limited	EQ-OP-108	2750	1074	61%
73	Equinox Overseas Private Limited	EQ-OP-110	3800	1488	61%
74	Euro Medi Tools Pvt Ltd	AFK	2500	2500	0%
75	Finova Healthcare Pvt Ltd	Yobekon	2500	1339	46%
76	Finova Healthcare Pvt Ltd	PC-60A	2500	1428	43%
77	Glowria	Dr. AID	2999	1466	51%
78	Haiden Technology Pvt Ltd	Control D	2999	1223	59%
79	Health care Solutins	MedEzia	4100	1304	68%
80	Healthgenie India Pvt Ltd	Healthgenie	1899	1899	0%
81	Healthgenie India Pvt Ltd	Healthgenie	1999	1999	0%
82	Heidelco Medicores Pvt Ltd	Heidelco Medicores	4000	1787	55%
83	Home Medix India Pvt Ltd	Fingetip Pulse Oximeter	3000	958	68%
84	I Trust Care	MR GR8	3199	1437.53	55%
85	Impact Distributors	Yuwell Model:YX 102	3999	1523	62%
86	Infinity Mediquip India Pvt Ltd	Jumper	2800	1400	50%

87	Infinity Mediquip India Pvt Ltd	Mediware	1999	880	56%
88	Infinity Mediquip India Pvt Ltd	Infi	1999	1375	31%
89	Infinity Mediquip India Pvt Ltd	Unbranded	1999	1820	9%
90	Jaina India Pvt Ltd	LK88	2990	956	68%
91	Kannu Impex India Pvt Ltd	FTP 102	4499	2456.5	45%
92	Kannu Impex India Pvt Ltd	FTP 103	3999	1788.4	55%
93	Kannu Impex India Pvt Ltd	FTP 104	3999	1365.1	66%
94	Kannu Impex India Pvt Ltd	FTP 105	3999	1387.2	65%
95	Kannu Impex India Pvt Ltd	FTP 106	3999	1720.4	57%
96	Lifeline Medical Devices	Life-line (LI)	3750	1427	62%
97	Lifeline Medical Devices	Life-line (Alpha)	3750	2099	44%
98	Mann Electronics	Mann	1047	792	24%
99	Masimo Medical Technologies India Pvt Ltd	Rad-97 TM	126900	97980	23%
100	Masimo Medical Technologies India Pvt Ltd	Rad-97 TM with NomoLine Capnography	351780	262500	25%
101	Masimo Medical Technologies India Pvt Ltd	Radius-7 Wifi	292200	154875	47%
102	Masimo Medical Technologies India Pvt Ltd	RD Radius-7 (Bluetooth Only)	262800	139475	47%
103	Masimo Medical Technologies India Pvt Ltd	RD Radius-7 Wifi Conversion Kit	200700	106400	47%
104	Masimo Medical Technologies India Pvt Ltd	RD Radius-7 Bluetooth Conversion Kit	182700	96950	47%
105	Masimo Medical Technologies India Pvt Ltd	Radius PPG Kit, Adt (20 Sensors, 1 Chip, 1 Receiver)	151800	80500	47%
106	Masimo Medical Technologies India Pvt Ltd	Radius PPG Kit, Neo (20 Sensors, 1 Chip, 1 Receiver)	172500	91525	47%
107	Masimo Medical Technologies India Pvt Ltd	Radius PPG Kit for Masimo Safety Net Kit	23400	20475	13%

108	Masimo Medical Technologies India Pvt Ltd	Radius T for Masimo Safety Net Kit	12900	6825	47%
109	Masimo Medical Technologies India Pvt Ltd	Radius T and Radius PPG for Masimo Safety Net Kit	51600	27300	47%
110	Masimo Medical Technologies India Pvt Ltd	Rad-8, Horizontal (With Simplified User Interface)	141000	74725	47%
111	Masimo Medical Technologies India Pvt Ltd	Rad-8, Vertical (With Simplified User Interface)	141000	74725	47%
112	Masimo Medical Technologies India Pvt Ltd	Rad-67 with SET and SpHb	237600	126000	47%
113	Masimo Medical Technologies India Pvt Ltd	Rad-57 Portable Co-oximeter with Case or Boot	102300	54250	47%
114	Masimo Medical Technologies India Pvt Ltd	Rad-5, Configurable, Portable Oximeter with MS2000, Premium, World Wide, with DCSC and Handheld Boot	96000	50107	48%
115	Masimo Medical Technologies India Pvt Ltd	Rad-5, Configurable, Portable Oximeter with MS2000, World Wide, with DCSC and Handheld Boot	49500	28875	42%
116	Masimo Medical Technologies India Pvt Ltd	Rad-5 Pulse Oximeter	105780	42840	60%
117	Masimo Medical Technologies India Pvt Ltd	Rad-5v Pulse Oximeter	106340	42350	60%
118	Masimo Medical Technologies India Pvt Ltd	Rad-G Pulse Oximeter Kit	124800	14154	89%
119	Masimo Medical Technologies India Pvt Ltd	Rad-G Continuous Pulse Oximeter Kit	124800	66063	47%
120	Masimo Medical Technologies India Pvt Ltd	Rad-G Continuous Pulse Oximeter Kit	124800	52850	58%
121	Masimo Medical Technologies India Pvt Ltd	Rad-G Pulse Oximeter with Temperature	186600	99050	47%
122	Masimo Medical Technologies India Pvt Ltd	Rad-G with Temperature Kit with Sensor	186600	99050	47%

123	Masimo Medical Technologies India Pvt Ltd	Pronto, Spot Check Pulse Co-Oximeter	97920	51450	47%
124	Masimo Medical Technologies India Pvt Ltd	Pronto, Next Gen SpHb	263100	139475	47%
125	Masimo Medical Technologies India Pvt Ltd	Radius PCG, mmHg Kit	386100	204750	47%
126	Masimo Medical Technologies India Pvt Ltd	Radius PCG, kaPa Kit	386100	204750	47%
127	Masimo Medical Technologies India Pvt Ltd	Mightysat Rx, SET	38100	19950	48%
128	Masimo Medical Technologies India Pvt Ltd	Mightysat Rx, SET with Bluetooth	57000	27650	51%
129	Masimo Medical Technologies India Pvt Ltd	Mightysat Rx, SET with Bluetooth, PVI, RRp	76410	31544	59%
130	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx 30-Pin Series, Adult	48000	25375	47%
131	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx 30-Pin Series, Pediatric	48000	25375	47%
132	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx 30-Pin Series, M-LNCS	34800	18550	47%
133	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx Lightning Series, M-LNCS	58217	18550	68%
134	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx Lightning Series, Audit	48900	26418	46%
135	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx Lightning Series, Pediatric	48900	25900	47%
136	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx Micro USB Series, M-LNCS	34800	18550	47%
137	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx Micro USB Series, Adult	48900	25900	47%
138	Masimo Medical Technologies India Pvt Ltd	iSpO2 Rx Micro USB Series, Pediatric	48900	25900	47%

139	Masimo Medical Technologies India Pvt Ltd	uSp02 Masimo SET Oximetry Cable, ODU Connector, 1ft, 1/Box	259200	137375	47%
140	Masimo Medical Technologies India Pvt Ltd	uSp02 Masimo SET Oximetry Cable, Dreamstation, 6ft, 1/Box	259200	137375	47%
141	Masimo Medical Technologies India Pvt Ltd	uSp02 Pulse Oximetry Cable Kit, use with GE ApexPro, ApexPro CH, and CARESAPE T4 Telemetry Transmitter	174600	92575	47%
142	Masimo Medical Technologies India Pvt Ltd	uSp02 Pulse Oximetry Cable Kit, use with GE ApexPro FH T4 Telemetry Transmitter	174600	92575	47%
143	Masimo Medical Technologies India Pvt Ltd	Masiom Usp02 for GE Apex CH, T4 and T14 Transmitter	174600	92575	47%
144	Masimo Medical Technologies India Pvt Ltd	Masiom Usp02 for GE ApexPro FH Transmitter	174600	92575	47%
145	Masimo Medical Technologies India Pvt Ltd	Consists of P/N 9500 (Handheld) and P/N 9023 (RDS-3) + Patient Cable	346800	183925	47%
146	Masimo Medical Technologies India Pvt Ltd	Consists of P/N 9500 (Handheld) and P/N 95015 (Root) + Patient Cable + Sensor	610500	330225	46%
147	Masimo Medical Technologies India Pvt Ltd	Root + Radius 7	629100	333725	47%
148	Masimo Medical Technologies India Pvt Ltd	Rad-97 with Noninvasive Blood Pressure	254706	137802	46%
149	Masimo Medical Technologies India Pvt Ltd	Root with Noninvasive Blood Pressure	624300	331100	47%
150	Matrix Cellular (International) Services Ltd	Yobekon	2550	489	81%
151	Mediquip Healthcare Solutions LLP	Oxymed	3990	1890	53%
152	Medi Sales India Pvt Ltd	Maxx ZOI Fingertip Pulse Oximeter	3100	1330	57%
153	Medicare Products	MCP	4999	1773	65%
154	Medsources Ozone Biomedicals Pvt Ltd	Ozocheck	2595	1740	33%
155	Medtech Life Pvt Ltd	Pulse Oximeter OG-05	4500	1267	72%

156	Medtech Life Pvt Ltd	Pulse Oximeter OG-02	4500	1530	66%
157	Medtech Life Pvt Ltd	Pulse Oximeter OG-01	4500	1563	65%
158	Medtech Life Pvt Ltd	Pulse Oximeter OG-03	4500	1695	62%
159	Mehar Healthcare Corporation	Mehar	4999	1931	61%
160	Mehar Healthcare Corporation	Mehar Ascomed	2499	1162	54%
161	Mehar Healthcare Corporation	Mehar Ready Oxy	2499	1448	42%
162	Micro and Nano Technologies	Meditive	3890	1450	63%
163	Microgene Diagnostic Systems Pvt Ltd	Accusure Fingetip Pulse Oximeter-LED	2812	1330	53%
164	Microgene Diagnostic Systems Pvt Ltd	Accusure Fingetip Pulse Oximeter-OLED (Model-FS20C)	3999	1880	53%
165	Microgene Diagnostic Systems Pvt Ltd	Accusure Fingetip Pulse Oximeter-OLED (Model-YK011)	2812	1340	52%
166	Microgene Diagnostic Systems Pvt Ltd	Accusure Digital Thermometer MT-1027 (MT Series)	316	170	46%
167	Microtek International Pvt Ltd	Microtek	1499	1129	25%
168	Morepen Laboratories Ltd	Dr. Morepen PO-09	2999	1250	58%
169	Morepen Laboratories Ltd	Dr. Morepen PO-12	2999	1500	50%
170	Morepen Laboratories Ltd	Dr. Morepen PO-12A	2999	1500	50%
171	Morepen Laboratories Ltd	Dr. Morepen PO-14	2999	1500	50%
172	Morepen Laboratories Ltd	Dr. Morepen PO-15	2999	1500	50%
173	Nareena Lifesciences Pvt Ltd	Nareena	4200	1048	75%
174	National Industrial Corporation	Fingertip Pulse Oximeter CMS 50D	3990	950	76%
175	National Industrial Corporation	Fingertip Pulse Oximeter FPO-95	2499	1030	59%
176	National Industrial Corporation	Fingertip Pulse Oximeter FPO-101	2499	1129	55%
177	National Industrial Corporation	Fingertip Pulse Oximeter FPO-94	2499	1210	52%
178	National Industrial Corporation	Fingertip Pulse Oximeter FPO-96	2499	1251	50%
179	National Industrial Corporation	BM 30 Upper Arm BPM	3060	2190	28%

180	National Industrial Corporation	Fingertip Pulse Oximeter FPO-92 Pediatric	3500	2690	23%
181	National Industrial Corporation	Fingertip Pulse Oximeter FPO-93	2499	1725	31%
182	National Industrial Corporation	BM 54 BPM	5715	4950	13%
183	National Industrial Corporation	Fingertip Pulse Oximeter FPO-97	2499	1848	26%
184	National Industrial Corporation	Fingertip Pulse Oximeter FPO-91	2499	1850	26%
185	National Industrial Corporation	Fingertip Pulse Oximeter FPO-99	2499	1886	25%
186	National Industrial Corporation	BC 30 Wrist BP Monitor	2560	2190	14%
187	National Industrial Corporation	Fingertip Pulse Oximeter 50 QB	3150	2850	10%
188	National Industrial Corporation	BM 45 Upper Arm BPM	4300	4090	5%
189	National Industrial Corporation	BM 28 Upper Arm BPM with Adapter	2780	2760	1%
190	National Industrial Corporation	Pulse Oximeter 08A	2499	2499	0%
191	NISCO (India)	Finger Tip Pulse Oximeter FPO-95	2499	952	62%
192	NISCO (India)	Finger Tip Pulse Oximeter FPO-101	2499	1266	49%
193	NISCO (India)	Finger Tip Pulse Oximeter FPO-96	2499	1378	45%
194	NISCO (India)	Finger Tip Pulse Oximeter FPO-94	2499	1417	43%
195	NISCO (India)	Finger Tip Pulse Oximeter FPO-99	2499	1522	39%
196	NISCO (India)	Finger Tip Pulse Oximeter FPO-93	2499	1775	29%
197	NISCO (India)	Finger Tip Pulse Oximeter FPO-97	2499	1934	23%
198	NISCO (India)	Finger Tip Pulse Oximeter FPO-91	2499	2061	18%
199	NISCO (India)	Handheld Pulse Oximeter 60C	11500	8837	23%
200	NISCO (India)	Handheld Pulse Oximeter 60D	13100	9692	26%
201	NISCO (India)	Table Top Pulse Oximeter CMS-70A	24500	19039	22%
202	Nureca Limited	Dr. Trust Pulse Oximeter - 211	5150	2265	56%
203	Nureca Limited	Dr. Trust Pulse Oximeter - 210	5150	2660	48%

204	Nureca Limited	Dr. Trust Fingertip Pulse Oximeter - 212	4200	2660	37%
205	Nureca Limited	Dr. Trust Pulse Oximeter - 209	4100	2660	35%
206	Nureca Limited	Dr. Trust Pulse Oximeter Professional Series - 203	4450	3060	31%
207	Nureca Limited	Dr. Trust Pulse Oximeter - 217	3750	2660	29%
208	Nureca Limited	Dr. Trust Pulse Oximeter Signature Series - 201	3750	2675	29%
209	Nureca Limited	Dr. Trust Pulse Oximeter - 204	3750	3750	0%
210	Nureca Limited	Dr. Trust Pulse Oximeter - 213	3750	3750	0%
211	Omron Healthcare India Pvt Ltd	Omron	3590	1635	54%
212	Oremed Medical	Lepu Medical	4500	1700	62%
213	Paramount Surgimed	Paramount	1900	1900	0%
214	Phoenix Innovative Healthcare Manufacturers Pvt Ltd	Home Aid	2999	1220	59%
215	Prajwal Surgicals & Scientifics	Healthshine	2990	1554	48%
216	Recorders and Medicare Systems Pvt Ltd	RMS P122	2200	2105	4%
217	Recorders and Medicare Systems Pvt Ltd	Contec (CMS50D)	1500	1500	0%
218	Recorders and Medicare Systems Pvt Ltd	RMS P121	27000	27000	0%
219	Romsons Group Pvt Ltd	Pulse Oximeter	3300	1714	48%
220	Sahyog Wellness	Advanced OLED	2595	2580	1%
221	Sahyog Wellness	Next GEN, OLED	3495	1947	44%
222	Sare Healthcare Pvt Ltd	Sara+Care	2600	1250	52%
223	Schiller Healthcare India Pvt Ltd	Schiller	36500	36500	0%
224	Schiller Healthcare India Pvt Ltd	Schiller	60000	60000	0%
225	Silverline Medtech Pvt Ltd	FTP-1400	5885	735	88%
226	Silverline Medtech Pvt Ltd	FTP-1600	5885	2035	65%
227	Spaceage Multiproducts Pvt Ltd	Shikon	1950	850	56%
228	Spaceage Multiproducts Pvt Ltd	Shikon	1950	915	53%
229	SS Electronics	JN	1699	1625	4%

230	Uphealthy Medical Devices Pvt Ltd	Blue	2499	1500	40%
231	Uphealthy Medical Devices Pvt Ltd	White	2499	1500	40%
232	Vats Medical Healthcare Pvt Ltd	Olex Oximeter	4500	1327	71%
233	Vertech Health Solutions India Pvt Ltd	Perfecxa Pulse Oximeter Q2	4200	835	80%
234	Vertech Health Solutions India Pvt Ltd	Perfecxa Pulse Oximeter Q3	4000	1070	73%
235	Vertech Health Solutions India Pvt Ltd	Perfecxa Pulse Oximeter VH550	5500	1170	79%
236	Vertech Health Solutions India Pvt Ltd	Perfecxa Pulse Oximeter CMS50D	5500	1650	70%
237	Vertech Health Solutions India Pvt Ltd	Perfecxa Pulse Oximeter PC6081	6500	2190	66%
238	Warner Electronics Pvt Ltd	Trueview Make Model i31	2500	866	65%
239	Warner Electronics Pvt Ltd	Trueview Make Model i413	2500	1383	45%
240	Wellona Medworks Pvt Ltd (Importer) & Glensmith Labs Pvt Ltd (Marketing)	Glensmith Pulse Oximeter	4200	1695.75	60%
241	Zebronics India Pvt Ltd	ZEB-FPO500	1499	1141	24%
242	Zebronics India Pvt Ltd	ZEB-FPO600	1499	1487	1%
243	Zebronics India Pvt Ltd	M70	1499	1499	0%

Source: Office Memorandum, NPPA dated 28 July, 2021.

Annexure 3: Percentage price reduction of medical devices brands under price capping

S.No.	Company Name	Brand Name	PTR/unit (₹)	Average PTR per unit (₹)	Price Reduction
Condom					
1	Mankind Pharma Ltd	Manforce Extra Dotted Chocolate	5.33	5.66	-6%
2	Mankind Pharma Ltd	Manforce Extra Dotted Chocolate	4.8	5.66	-18%
3	Mankind Pharma Ltd	Manforce Extra Dotted Chocolate	4.8	5.66	-18%
4	Mankind Pharma Ltd	Manforce Extra Dotted Strawberry	5.33	5.66	-6%
5	Mankind Pharma Ltd	Manforce Extra Dotted Strawberry	4.8	5.66	-18%
6	Mankind Pharma Ltd	Manforce Extra Dotted Strawberry	4.8	5.66	-18%

7	Mankind Pharma Ltd	Manforce Extra Dotted Black Grapes	5.33	5.66	-6%
8	Mankind Pharma Ltd	Manforce Extra Dotted Black Grapes	4.8	5.66	-18%
9	Mankind Pharma Ltd	Manforce Extra Dotted Jasmine	5.33	5.66	-6%
10	Mankind Pharma Ltd	Manforce Extra Dotted Jasmine	4.8	5.66	-18%
11	Mankind Pharma Ltd	Manforce Extra Dotted Banana	5.33	5.66	-6%
12	Mankind Pharma Ltd	Manforce Extra Dotted Banana	4.8	5.66	-18%
13	Mankind Pharma Ltd	Manforce 3 in 1 Bubblegum	5.33	5.66	-6%
14	Mankind Pharma Ltd	Manforce 3 in 1 Bubblegum	4.8	5.66	-18%
15	Mankind Pharma Ltd	Manforce More More	4	5.66	-42%
16	Mankind Pharma Ltd	Manforce More More	6.66	5.66	15%
17	Mankind Pharma Ltd	Manforce More More	5.6	5.66	-1%
18	Mankind Pharma Ltd	Manforce More More	4.8	5.66	-18%
19	Mankind Pharma Ltd	Manforce Smooth & Ultrathin Vanilla	5.33	5.66	-6%
20	Mankind Pharma Ltd	Manforce Smooth & Ultrathin Vanilla	4.8	5.66	-18%
21	Hindustan Latex Ltd	Moods 1500 dots Square Super Dotted	11.11	5.66	49%
22	Hindustan Latex Ltd	Moods Square Aloe Vera	8.33	5.66	32%
23	Hindustan Latex Ltd	Moods Blaze Square Warming Gel	8.33	5.66	32%
24	Hindustan Latex Ltd	Moods Cool Square Cooling Gel	8.33	5.66	32%
25	Hindustan Latex Ltd	Moods Crezendo Square Vibrating Ring	34.73	5.66	84%
26	Hindustan Latex Ltd	Moods Melange Square Assorted	8.34	5.66	32%
27	Hindustan Latex Ltd	Moods X'tasy Square 3in1&Extra delay	8.33	5.66	32%
28	Hindustan Latex Ltd	Moods Allnight Square Popular	5.57	5.66	-2%
29	Hindustan Latex Ltd	Moods Premium Square Allnight (Delay)	6.93	5.66	18%
30	Hindustan Latex Ltd	Moods Square Flavoured	8.33	5.66	32%

31	Hindustan Latex Ltd	Moods Dotted Square Strawberry	8.33	5.66	32%
32	Hindustan Latex Ltd	Moods Square Scented	5.56	5.66	-2%
33	Hindustan Latex Ltd	Moods Square Supreme Dotted	5.56	5.66	-2%
34	Hindustan Latex Ltd	Moods Square Premium Dotted	6.93	5.66	18%
35	Hindustan Latex Ltd	Moods Square Supreme Ribbed	5.57	5.66	-2%
36	Hindustan Latex Ltd	Moods Square Premium Ribbed	6.95	5.66	19%
37	Hindustan Latex Ltd	Moods Square Ultrathin	4.2	5.66	-35%
38	Hindustan Latex Ltd	Moods Square Ultrathin Reg.	5.56	5.66	-2%
39	Hindustan Latex Ltd	Moods Premium Square Utrathin	5.56	5.66	-2%
40	Hindustan Latex Ltd	Moods Premium Square Allnight	5.56	5.66	-2%
41	Hindustan Latex Ltd	Moods Premium Square Supreme Dotted	5.56	5.66	-2%
42	Hindustan Latex Ltd	Moods Premium Square Utrathin	4.86	5.66	-16%
43	Hindustan Latex Ltd	Moods Square Allnight Delay	5	5.66	-13%
44	Hindustan Latex Ltd	Moods Square Supreme Dotted	5	5.66	-13%
45	Hindustan Latex Ltd	Moods Square Ultrathin Reg.	4.17	5.66	-36%
46	Hindustan Latex Ltd	Moods 1500 dots Square Super Dotted	6.94	5.66	18%
47	Hindustan Latex Ltd	Moods Square Aloe Vera	6.25	5.66	9%
48	Hindustan Latex Ltd	Moods Blaze Square Warming Gel	6.25	5.66	9%
49	Hindustan Latex Ltd	Moods Cool Square Cooling Gel	6.25	5.66	9%
50	Hindustan Latex Ltd	Moods Dotted Square Strawberry	5.56	5.66	-2%
51	Hindustan Latex Ltd	Moods Melange Square Assorted	5.56	5.66	-2%
52	Hindustan Latex Ltd	Moods X'tasy Square 3 in 1	6.25	5.66	9%
53	Hindustan Latex Ltd	Moods Premium Square Allnight	4.52	5.66	-25%
54	Hindustan Latex Ltd	Moods Square Flavoured	6.25	5.66	9%

55	Hindustan Latex Ltd	Moods Square Premium Dotted	5.56	5.66	-2%
56	Hindustan Latex Ltd	Moods Square Premium Dotted	5.56	5.66	-2%
57	Hindustan Latex Ltd	Moods Square Ultrathin Reg.	4.17	5.66	-36%
58	Hindustan Latex Ltd	Moods Square Variety Pack	5.21	5.66	-9%
59	Hindustan Latex Ltd	Moods Square Allnight Delay	5	5.66	-13%
60	Hindustan Latex Ltd	Moods Square Super Dotted	4.58	5.66	-24%
61	Hindustan Latex Ltd	Moods Square Ultrathin Reg.	3.75	5.66	-51%
62	Hindustan Latex Ltd	Moods X'tasy Square NA	4.58	5.66	-24%
63	JK Ansell Ltd	KamaSutra NA Dotted	5.56	5.66	-2%
64	JK Ansell Ltd	KamaSutra NA Dotted	5	5.66	-13%
65	JK Ansell Ltd	KamaSutra NA Dotted	4.67	5.66	-21%
66	JK Ansell Ltd	KamaSutra NA Ribbed	5.56	5.66	-2%
67	JK Ansell Ltd	KamaSutra NA Ribbed	5	5.66	-13%
68	JK Ansell Ltd	KamaSutra NA Ribbed	4.67	5.66	-21%
69	JK Ansell Ltd	KamaSutra NA Smooth	3.33	5.66	-70%
70	JK Ansell Ltd	KamaSutra NA Smooth	3.33	5.66	-70%
71	JK Ansell Ltd	KamaSutra NA Smooth	3.33	5.66	-70%
72	JK Ansell Ltd	KamaSutra NA Long Last	6.67	5.66	15%
73	JK Ansell Ltd	KamaSutra NA Long Last	6	5.66	6%
74	JK Ansell Ltd	KamaSutra NA Long Last	6.67	5.66	15%
75	JK Ansell Ltd	KamaSutra NA Superthin	6.67	5.66	15%
76	JK Ansell Ltd	KamaSutra NA Superthin	6	5.66	6%
77	JK Ansell Ltd	KamaSutra NA Superthin	6.67	5.66	15%
78	JK Ansell Ltd	KamaSutra NA Intensity	6	5.66	6%
79	JK Ansell Ltd	KamaSutra NA Intensity	6.67	5.66	15%
80	JK Ansell Ltd	KamaSutra NA Wet n Wild	6.67	5.66	15%
81	JK Ansell Ltd	KamaSutra NA Wet n Wild	6	5.66	6%

82	JK Ansell Ltd	KamaSutra NA Chill Thrill	6.67	5.66	15%
83	JK Ansell Ltd	KamaSutra NA Chill Thrill	6	5.66	6%
84	JK Ansell Ltd	KamaSutra NA Warm Intimacy	6.67	5.66	15%
85	JK Ansell Ltd	KamaSutra NA Warm Intimacy	6	5.66	6%
86	JK Ansell Ltd	KamaSutra NA Excite Chocolate	3.71	5.66	-53%
87	JK Ansell Ltd	KamaSutra NA Excite Chocolate	3.7	5.66	-53%
88	JK Ansell Ltd	KamaSutra NA Excite Chocolate	3.7	5.66	-53%
89	JK Ansell Ltd	KamaSutra NA Excite Strawberry	3.71	5.66	-53%
90	JK Ansell Ltd	KamaSutra NA Excite Strawberry	3.7	5.66	-53%
91	JK Ansell Ltd	KamaSutra NA Excite Strawberry	3.7	5.66	-53%
92	JK Ansell Ltd	KamaSutra NA Excite Vanilla	3.71	5.66	-53%
93	JK Ansell Ltd	KamaSutra NA Excite Vanilla	3.7	5.66	-53%
94	JK Ansell Ltd	KamaSutra NA Excite Vanilla	3.7	5.66	-53%
95	JK Ansell Ltd	KamaSutra NA Excite Butterscotch	3.71	5.66	-53%
96	JK Ansell Ltd	KamaSutra NA Excite Butterscotch	3.7	5.66	-53%
97	JK Ansell Ltd	KamaSutra NA Excite Butterscotch	3.7	5.66	-53%
98	JK Ansell Ltd	KamaSutra NA Sajan Luxury	1.38	5.66	-310%
99	JK Ansell Ltd	KamaSutra NA Sajan Luxury	1.79	5.66	-216%
100	JK Ansell Ltd	KamaSutra NA Contoured	5.56	5.66	-2%
101	JK Ansell Ltd	KamaSutra NA Classic	3.76	5.66	-51%
102	JK Ansell Ltd	KamaSutra NA Surprise	3.76	5.66	-51%
Hormonal Intra-uterine Device (IUD)					
1	ORGANON (INDIA) LTD	MULTILOAD 250 MG DEVICE 1	307.2	368.93	-20%
2	ORGANON (INDIA) LTD	MULTILOAD 375 MG DEVICE 1	438.6	368.93	16%
3	ORGANON (INDIA) LTD	NUVA RING SACHET 1	632	368.93	42%

4	ZYDUS CADILA	ZYLOAD DEVICE	178.92	368.93	-106%
IUD Containing Copper					
1	Organon	MULTILOAD	320	284.93	11%
2	Organon	MULTILOAD	481.6	284.93	41%
3	HLL Lifecare	T care 200B	96	284.93	-197%
4	HLL Lifecare	T Care 380A	100	284.93	-185%
5	HLL Lifecare	M care Cu 25	280	284.93	-2%
6	HLL Lifecare	N care Cu 37	432	284.93	34%

Source: Working Sheets, NPPA