

# **Why the increase in drug prices in India? What are the solutions?**

## **English translation of the Pamphlet on Drug Price Rise**

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In addition to the increase in fuel prices, the central government has made the lives of the people more miserable by raising the prices of essential medicines also. The pharmaceutical companies were pressuring the central government to increase drug prices. Citing the rising prices for bulk drugs (Active Pharmaceutical Ingredients) needed to produce drugs. Instead of helping the people by adopting policies to avoid rising drug prices and making life-saving drugs more affordable, the central government has completely responded to the demands of the pharmaceutical companies and increased drug prices.

The prices of 872 Scheduled Drugs in the National List of Essential Medicines and essential health products required for emergency treatments such as angioplasty and dialysis have been increased by the National Pharmaceutical Pricing Authority (NPPA) from April 1<sup>st</sup> 2022. The prices of drugs are increased by 10.78 percent. Earlier as per the Drug Price Control Ordinance of 2013, it was allowed to increase the prices of essential drugs up to a maximum of 5 per cent as per the Wholesale Price Index and 10 per cent for other drugs per annum.. As GST will increase in proportion to the increase in prices, the final price of medicines will be even higher. Essential medicines are sold by various companies under 30,000-40,000 brands. It the prices of non-patented drugs that have been increased. It should be noted that foreign companies have arbitrarily set the prices of patented medicines at exorbitant prices. Moreover, the Fixed Drug Combination drugs - most of them non essential and covering around 40% drug market - do not come under the price control order.

At present, 70 per cent of the out-of-pocket expenditure in the country is spent for medicines and health products. People with chronic illnesses such as diabetes, high blood pressure, lung disease and cancer, who have to take medication for a lifetime, will be hit hardest by the rise in drug prices. The anti-people drug policies pursued by successive governments at the centre have led to new drug price hikes, allowing big drug companies to rob people.

## **History of the Indian Pharmaceutical Industry**

The Indian pharmaceutical industry has witnessed unprecedented growth since independence. The Indian pharmaceutical industry has grown and developed as a result of legislation and industrial and pharmaceutical policies implemented by the Government of India. India has become one of the leading countries in the world in terms of technological capability and self-sufficiency to fully manufacture good quality affordable essential medicines. India has grown to be a country that provides affordable essential medicines not only to the Indian people but also to the people of many developing countries. But the Indian pharmaceutical industry is going through a severe crisis as a result of the economic and drug policies pursued by the Central Government over the last few years. It appears that the Indian pharmaceutical sector is returning to its pre-independence state.

## **Before independence**

At the time of independence, only drugs imported directly from Britain were sold in India. British pharmaceutical companies did not manufacture drugs in India. Drugs manufactured in British factories were only sold in India at exorbitant prices. The committee, headed by former US Senator Estes

Kevauver (1903-1963), estimated that India was the world's most expensive drug market at the time, with British companies selling only Rs 10 crore worth of drugs in India at the time of independence.

Even before independence, a number of small scale industrial units were set up in India under the leadership of patriotic Indians as part of the establishment of self-sufficient national enterprises. One of the most notable of these ventures was the Bengal Chemical and Pharmaceutical Works Limited - the first pharmaceutical company in India established by Acharya Prafulla Chandra Ray (1861-1944). It was founded in Bengal in 1901. Utilizing the research prowess of Indian scientists, the British government established the Central Research Institute in Kasauli, Himachal Pradesh in 1905 and the Pasteur Institute in Coonoor, Tamil Nadu in 1907 to develop the vaccines.

### **After independence**

In 1948, the Government of India announced an industrial policy aimed at attracting foreign technology and foreign capital to India. The Central Government announced an industrial policy that would give equal consideration to Indian and foreign companies, allow industrial profits to be exported without restraint, and provide appropriate compensation if foreign companies are taken over by the government. However, foreign companies set up factories in India only with minimal investment and tried to take away huge profits out of India.

Realizing that the 1948 industrial policy had failed, the Government of India announced a new industrial policy in 1956 aimed at self-sufficiency in the manufacturing sector. In the new industrial policy, the government has adopted an approach that gives a leading role to the public sector and encourages national and Indian private entrepreneurs. The government enacted the Foreign Exchange Regulation Act (FERA) and the Monopolies and Restrictive Trade Practices Act (MRTP), which imposes restrictions on foreign capital and restrict monopolization in the industrial sector. Hindustan Antibiotics Limited was started in Pune in 1954 with the help of the World Health Organization and UNICEF. 1961 Indian Drugs and Pharmaceuticals Limited, the second Indian public sector pharmaceutical company, was established in Rishikesh and Hyderabad with the assistance of the Soviet Union.

In 1972, the new Indian Patent Act came into force. In 1979, the Price Control Order (DPCO) was enacted. In 1978, the Government announced a new Drug Policy on the basis of the recommendations of the Hathi Committee (1975) appointed by the Government to study and submit recommendations on the Indian pharmaceutical industry. As a result of all these legislations, the Indian pharmaceutical industry began to grow at an unprecedented rate.

### **Patent law 1972**

In the years following India's independence, the same patent law as the British Government's patent law was in force. The Indian Patent Act, passed by the Indian Parliament in 1970, came into effect in April 1972. The most important feature of Indian patent law was the process patent system. Accordingly, Indian companies have been given the right to manufacture and market branded drugs of big companies that are patented abroad using a different process of production. The patent period of the pharmaceuticals was limited to 7 years.

Within 3- 4 years Indian companies started manufacturing drugs and patented innovative drugs. For example, the American company Eli Lilly started selling penicillin in India only 16 years after it was considered an anti-infective drug that started selling abroad in 1939. Twenty years later, another American company, Merck, marketed streptomycin in India, which was essential for the treatment of

tuberculosis in India, which has the highest number of tuberculosis patients in the world. (Table 1) However, in the years immediately following the enactment of the Patent Act 1972, drugs such as salbutamol, ranitidine and rifampicin were manufactured by Indian companies and made available to the Indian public.

### **1978 Drug Policy**

A Committee was formed in 1974 under the chairmanship of Jaisukhlal Hathi (1909-1982) to study the problems facing the Indian pharmaceutical industry and submit proposals for their solution. In April 1975, the Hathi Committee submitted its report to the Government, comprising 224 recommendations in eight chapters. The Hathi Committee recommended that the Indian pharmaceutical industry be reorganized under the leadership of the public sector pharmaceutical companies, and the committee recommended the nationalization of pharmaceutical companies. The Hathi Committee Report published the list of 116 essential medicines that cater to the health needs of the Indian people. Based on Hathi Committee recommendations the Government announced the 1978 Drug Policy and the 1979 Drug Price Control Policy.

Although the foreign companies were not nationalized as per the recommendations of the Hathi Committee, the Government adopted a policy of giving more importance to the public sector companies in the production of drugs and to the promotion of the Indian private sector. Foreign investment in the pharmaceutical sector has been capped at 40 per cent. The Drug Policy also stipulated that foreign companies with an annual turnover of over Rs. 5 crore should set apart 4% of their annual turnover for pharmaceutical research. Also import of finished products i.e. the formulations, was banned and bulk drug production in India was promoted. All this created an industrial environment conducive to the growth of Indian pharmaceutical companies. In 1970, Indian companies accounted for 10-20 per cent of the pharmaceutical market and foreign companies 80-90 per cent, but by the 1980s, Indian companies were on an equal footing with the foreign sector and by the 1990s, Indian companies had taken over 61% of the pharmaceutical market.

### **The Drug Price Control Order 1979**

The Drug Price Control Order (DPCO), which came into force on March 31, 1979, led to a significant reduction in the prices of essential medicines in India. The rule followed in this system is to divide the drugs into three categories (Table Two). Category One includes life-saving drugs and Category Two includes essential medicines with profit margin of 40 and 55 per cent respectively and 100 per cent margin on other drugs. The prices of essential medicines have come down significantly. As a result, India, which at the time of independence had to rely on expensive drugs from foreign companies, became one of the few countries in the world where the relatively low cost essential medicines were available.

### **Increase in exports**

At the time of India's independence, only Rs 10 crore worth of medicines were produced in India. The drug production in India during 2009-2010 was one lakh four thousand two hundred and nine (1, 04,209) crore rupees. Of this amount, drugs worth Rs 42,154 crore were sold in foreign countries, especially in developing countries. The domestic market was worth Rs 62,055 crore. In most of the developing countries, Indian companies have been marketing cheap and quality medicines in place of the expensive medicines of the big multinational pharmaceutical companies. Most of the drugs procured by the World Health Organization (WHO), UNICEF, the Medicine Sans Frontiers and the

International Dispensary Association (IDA), to make cheaper drugs available to developing countries were from the Indian companies. About 50% of the drugs dispensed by UNICEF and 80% of the medicines dispensed by IDA are purchased Indian companies.

### **Pharmacy of the Developing Countries**

Indian pharmaceutical companies have gained global recognition by making the drugs for HIV treatment available at very low prices. Multinational corporations began marketing HIV drugs at exorbitant prices, absolutely unaffordable for poor countries. While drugs from multinational corporations costed between \$ 10,000 and \$ 15,000 for a year of treatment, Indian companies have been able to provide HIV and AIDS patients with life-saving drugs at an incredibly low price of just \$ 325 to \$ 125. About 70 per cent of the medicines procured by the Clinton Foundation, the Global Fund, IDA and UNICEF and distributed to HIV and AIDS patients in 87 countries worldwide are purchased from Indian companies. About 89 per cent of the medicines required for the American President's Emergency Plan for AIDS Relief (PEPFAR) are also from the Indian companies.

It is internationally recognized that quality essential medicines are made available by Indian pharmaceutical companies at affordable prices, especially to developing countries. That is why India has been described as the "Pharmacy of the Developing World" and the "Pharmacy of the Poor" by Mediciens Sans Frontiers, the 1999 Nobel Peace Prize-winning public health movement.

### **Towards globalisation policies**

The pharmaceutical policy was diluted along with other sectors as part of the globalisation policies pursued by the Government of India. Regulation of foreign capital investment and control of monopolies were abandoned. 100 per cent capital inflows (Foreign Direct Investment: FDI) was permitted in the pharmaceutical sector also. The number of drugs falling under the purview of the Drug Price Control Act has been gradually reduced. Under the Indian Patent Act, which has come into force since 2005, the Product Patent system has been implemented in the place of the Process Patent system. With this development, the opportunity to manufacture cheaper generic drugs of patented drugs through another production method was eliminated. The patent period has been extended to 20 years. With the abandonment of the policy of producing basic medicines in India itself and allowing them to be imported, their production in India came to a standstill. That is why now Indian companies have to rely on expensive bulk drugs from outside. Although generic drugs are still being exported on a large scale by Indian companies, the import of bulk drugs and APIs are increasing every year as basic pharmaceuticals are no longer mandatorily produced in India.

Public sector pharmaceutical companies such as Hindustan Antibiotics and IDPL, which have been doing well, are being ignored and are facing the threat of closure. With this, the pharmaceutical industry came under the control of foreign and Indian monopolies. Three reputed vaccine factories in India since January 15, 2008 during the first UPA government - Central Research Institute: Kasauli, Pasteur Institute of India: Coonoor, and BCG Vaccine Laboratory in Guindy - were closed down in the pretext of lack of good manufacturing practices. Government agencies and the public have been forced to buy vaccines which were provided free of charge by the government at exorbitant prices from big private companies,.

Out of the 17 vaccines distributed through the Universal Vaccination Program, only four are currently being produced by government companies. Of these, only the Rabies (78.3%) and DPT (29.2%) vaccines make up the bulk of the total production, and the share of Tetanus Toxoid (1.4%) and Hepatitis B (0.2%)

is very limited. The government did not utilise the Indian vaccine companies for vaccine production during the Covid epidemic but were financially assisting private manufacturers like Serum Institute of India and the Bharath Biotech companies. .

### **Kerala State Drugs and Pharmaceutical Limited moves forward**

Kerala State Drugs and Pharmaceuticals Limited (KSDP), the public sector pharmaceutical company of the Government of Kerala, is growing at an exemplary level while Indian public sector pharmaceutical companies and vaccine factories are collapsing across the country.

KSDP was established in 1974 in Alappuzha. to make essential medicines available to government hospitals in Kerala instead of forcing them to rely on private companies. The Pai Committee (1979) had recommended that KSDP be developed into a kitchen capable of providing all the medicines required by government hospitals. However, KSDP was unable to increase production or modernise production methods in a timely manner. Subsequently, the KSDP, which was facing the threat of closure, was revived by the Left Front government in 2006 with the necessary financial assistance and was able to provide about 50 medicines worth around Rs 40 crore for government hospitals. Later, during the Left Front government in 2016, KSDP was further expanded and set up betalactam and injection plants in addition to the existing non-betalactam plant. At present, medicines worth Rs 200 crore are being manufactured here. Various schemes have been formulated to increase the production to 500 crore soon.

While the Hindustan Antibiotic Factory has stopped production of antibiotics, KSDP has been producing antibiotics such as ampicillin and cloxacillin. A plan has been drawn up to establish a new plant to produce cancer drugs. In addition to the Kerala Health Department, KSDP also supplies medicines to health departments in the southern Indian states of Telangana, Andhra Pradesh, Karnataka and Tamil Nadu. The state-of-the-art Drug Testing Laboratory located on campus is accredited by the NABL (National Accreditation Board for Testing and Calibration Laboratories: NABL). This will enable the quality control of the drugs manufactured by KSDP to be carried out immediately. KSDP has also been accredited by the World Health Organization (WHO - GMP: Good Manufacturing Practices) for outstanding manufacturing practices.

### **Compulsory License: The Historical Order**

The patent system grants certain monopoly marketing rights to companies and institutions that invent innovative drugs, as an incentive. Only patent holders have the right to market a patented product for a specified period of time. Companies also have the right to set their prices in accordance with national regulations. Patent offices can issue compulsory licenses to non patent companies to enable them to produce patented drugs in certain specified circumstances like there being a shortage of patented drugs, inability of patent holding companies to manufacture drugs in quantities as required by the country, non availability of drugs for free distribution in the public sector and non-compliance with patent rights within a specified period. In many countries around the world, national companies are allowed to manufacture drugs under compulsory licensing in such circumstances

Mr PH Kurian, the then Patent Controller of India, was the first and last to issue an order mandating compulsory licensing in India. Shri P H. Kurian's 2012 order made history by granting a license to the Indian Company Natco to produce the drug sorafenib tosylate, used for the treatment of renal cell carcinoma and hepatocellular carcinoma. The drug was sold by the German company Bayer Corporation under the brand name Nexavar. Nexavar costs Rs 2,80,428 for a month's treatment and Rs 33,65,136 for

yearly treatment. . Indian companies like Cipla and Natco have come up with different production methods to produce high quality and non expensive soraphenib. Cipla's medicine cost Rs 30,000 for a month's treatment and Natco's medicine cost only Rs 8,800. Bayer filed a lawsuit against the two companies alleging patent infringement. Meanwhile, Natco applied to the patent controller for permission to sell their drug under the compulsory licensing provision. Natco's application was accepted for consideration by the Patent Controller. The cases filed by Bayer against this were dismissed by the Bombay and Delhi courts. The two companies then presented their arguments to the Patent Comptroller General for 18 hours for three consecutive days. In addition to the claims of both companies, documents from the World Health Organization (WHO) and international patent experts such as Carlos Corriea, and James Love were studied by the Patent Controller. Based on these documents and provision of TRIPS Flexibilities the Patent Controller granted Natco the right to produce the drugs as per the Compulsory Licensing provision. At present, the Nexavar (200 mg x 60) is priced at Rs 1,46,037, while Cipla's Soranib is priced at Rs 4,138 and the Natco's Sofrafenat is priced at Rs 4,440.

In spite of the above approval, The Central Government has so far not allowed the production of any drug under the Compulsory Licensing, rejecting several applications from Indian companies due to strong US pressure following the order against Bayer.

### **Drug prices also left to market forces**

The Price Control of 347 Essential Medicines in 1979, along with the Patent Law of 1972, played a major role in reducing the price of medicines in the country. Under pressure from pharmaceutical companies, the government reduced the number of drugs under its control to 142 in 1987 and to 74 in 1995. As a result, drug prices began to rise. The All India Drug Action Network (AIDAN) appealed to the Supreme Court against the reduction of price control drugs from 74 to 24 in 2002. AIDAN also demanded that the government should control the prices of essential medicines by compiling a list of essential medicines required for the health needs of the Indian people. Following the order from the Supreme Court the Government has prepared a list of 348 National Essential Drugs. Subsequently, the Pharmaceutical Pricing Policy 2011 was announced by the Pharmaceutical Pricing Authority. This was further modified in 2013. As per these policies the government implemented the practice of leaving drug prices to the market forces, as in the case of petroleum products, by adopting Market -Based Pricing instead of Cost Based pricing.

### **Drug price manipulations**

Drugs are different from other products sold in the market for many reasons. The most important feature is that the consumer i.e. patients do not decide which medication they need. It is up to the doctor to decide which drug a patient should take, when and for how long. Patients need to take the medicines prescribed by the doctors to avoid becoming at risk of worsening their health condition. Patients usually do not have the expertise needed to make medical decisions. No matter how trivial, treatment for the sick is a matter of urgency. Patients and family members will be willing to pay for it. Drugs become available to patients after a wide range of activities, including drug research, drug testing, manufacturing, wholesale and retail sales and finally the prescription of drugs. There is great potential for the exploitation of patients who are directly or indirectly disenfranchised at all levels. Due to these features of the pharmaceutical industry, it can be seen that the consumers including patients are most brutally exploited group in the consumer market.

## **Brand Generic Drugs**

Pharmaceutical companies market drugs under different brand names (company names). All drugs have chemical names, generic names and brand names. Once a drug is patented, pharmaceutical companies market their drug under a specific brand name, while other companies may market the same drug as a generic drug when the patent expires. It is possible that some companies may give a special brand name to their generic drugs. They are called branded generic drugs. Although the number of basic medicines may not be more than eight hundred, there are tens of thousands of medicines in the market. Some companies sell the same drug under different brands at different prices. However, no other product with the same quality and amount can be sold in the market at different prices. Pharmaceutical companies deliver their drugs to patients in a variety of ways, creating their brand image and brand preference.

Nevertheless, generic drugs are marketed at different prices as well as branded drugs. With the success of the campaign against brand fraud and the low cost of generic drugs, many big multinational companies have started launching their own cheaper versions of their branded drugs (branded generic). They may be cheaper than their original branded drugs but are more expensive than the generic drugs of Indian companies. All such marketing strategies have vitiated the drug pricing mechanisms.

## **Unscientific drug Combinations**

Pharmaceutical companies are also applying some other strategies to increase drug prices. Only single-ingredient drugs fall within the scope of price control. Hence many companies are trying to increase profits by marketing drugs as combination drugs (Fixed Drug Combinations: FDC) by adding ingredients that have no therapeutic justification. The World Health Organization's list of essential medicines contains less than a dozen FDC drugs. But there are about 300 unscientific FDC that are now being marketed in the Indian market under thousands of brand names that are not clinically justified. And FDCs form around 40% of Indian drug market. The drug marketing license is issued by the Central Drug Controller. State drug controllers have no authority to do so. However, various state drug controllers have started issuing permits for marketing FDCs that have no therapeutic validity.

## **MRP exploitation**

Pharmaceutical companies market their drugs at Maximum Retail Prices MRP. Pharmaceutical companies sell drugs to wholesalers all over India at high prices while wholesalers sell drugs to retailers after taking their own commissions. Finally, consumers are forced to buy drugs at very high retail prices (MRPs). It is unfortunate that MRP exploitation is most prevalent in the case of expensive cancer drugs.

In short, patients are being subjected to massive exploitation in terms of drug prices at various levels. Huge financial interest groups at various levels; the Pharmaceutical companies, all-India and state level wholesalers and retailers are subjecting patients to exploitation. Not only pharmaceutical companies but also drug stores are giving away gifts to doctors in the form of kickbacks. All of them try to influence the doctors with the temptation of huge rewards by enticing them to prescribe their particular brands - most of them costly to the patients. Ultimately, the enormous burden of fraud and embezzlement in the form of inflated drug prices falls on patients who do not know anything about such manipulations. It is a common misconception that expensive medicines are of high quality. It is comforting to note that socially responsible physicians' organisations at the international and national levels are taking a stand against the unethical practices in the field of drug marketing.

## **Online Drug Stores**

Meanwhile, the government has given permission for the online drug trade. Doctors' prescriptions are conditional, but online trading monitoring systems are not strong enough to monitor drug prescription and sale. Drug controllers are expected to periodically inspect pharmacies and withdraw substandard drugs from the market. Since such drug quality inspection is almost impossible in the online trade, the chances of substandard drugs being sold are very high.

## **Fair price drug stores**

State governments have been trying to buy drugs directly from pharmaceutical companies and through medical services corporations and sell them at fair prices to the consumers at fair price drug stores to prevent exploitation of consumers at various levels. The wholesalers' association is threatening to boycott the pharmaceutical companies that supply drugs directly to the government. The All India and State Level Drug Wholesalers' Association is operating as a mafia group attempting to thwart attempts to sell drugs through fair price shops. In addition to enforcing strict drug price controls to protect consumers from their organized exploitation, there has been a suggestion that fair price medical stores should be set up across the country on the model of ration shops. The Central Government has started Janoshadhi medicine shops. But only a very small percentage of the drugs sold in the country are made available through such shops. Moreover, there have been complaints about the quality of medicines in such stores. This issue also needs to be addressed.

The All India Peoples Health Movement (Jan Swasthya Abhiyan: JSA) has put forward a number of proposals to control the price of medicines and to ensure the availability of essential medicines to the weaker sections. The Governments of Tamil Nadu, Kerala and Rajasthan have set an example by setting up Medical Services Corporations to procure good quality but low priced medicines to government hospitals. Drug Prescription should be rationalised and made scientific by preparing an Essential Drug List based on the formulation of Treatment Protocols and Guidelines.

## **Unaffordable medical care**

A 2012 study by the National Sample Survey estimated that 23% of the Indian population could not seek medical care due to unaffordable medical expenses, and that between 1999 and 2000 alone, 3.5 million people fell below the poverty line following hospital treatment. The All India Public Health Movement (Janaswasthya Abhiyan) estimated that Rs 6,000 crore would be required for the medicine for OP cases alone. If the medicines required for OP treatment are made available to all it will be possible to avoid hospital treatment for many without causing serious illness and thereby reducing the cost of treatment.

These medical expenditures may not be able to be met within the health budget of the State Governments. The health movement is demanding that the central government bear the cost of medicines directly. The health sector currently accounts for only 1.1 per cent of the gross national income. The central government has promised to increase this to 3.5 per cent. Even if 2.5% of the national income is earmarked for the health sector, all the essential medicines can be made available to patients.

## **Open Source Drug Discovery**

Open Source Drug Discovery (OSDD) models based on mutual cooperation and sharing of information and data between researchers and research institutions are being implemented in many countries to develop relevant drugs based on the philosophy of free software and without reliance on monopolies.



Through OSDD, research is being conducted to find drugs for neglected diseases affecting marginalised populations - drugs that are not of interest to large pharmaceutical companies.

The OSDD project was launched in India in 2008 under the auspices of the Council of Scientific and Industrial Research (CSIR). A project to develop an effective new drug for tuberculosis was launched. The concept was that once the a drug is developed the patent will rest with the CSIR and licenses for the manufacture of drugs will be given to multiple companies that are willing to produce generic drugs at lower prices, avoiding the monopoly on the sale of drugs. The research project, which was successfully being carried out by 34 research institutes in the country, with many scientists from inside and outside India, has come to a standstill since 2014 due to withdrawal of the funding by the Central Government without showing any reason. During the Eleventh Five Year Plan, `49 crore was sanctioned for the project. The Planning Commission had demanded an allocation of Rs 650 crore during the 12th Plan. The National Institute of Tuberculosis and Respiratory Diseases, a renowned national institute in Delhi, have expressed their displeasure to the Central Government for failing to provide financial assistance during the second drug testing phase of the research.

The Central Government can solve the crisis of the pharmaceutical sector and help the people if they have political will for implementing appropriate policies. Mass movements should campaign for the implementation of the following policies by the Central Government.

#### **What the Central Government should do:**

1. Implement a revised Drug Price Control Order in line with the Drug Price Control Order 1979. In the place of Market based drug pricing cost based drug pricing should be re-introduced. The prices of drugs in the revised Essential Drug List should come under price control. The prices of Patented Drugs should also be controlled.
2. Revitalise public sector Drug companies like Indian Drugs and Pharmaceuticals Limited and Hindustan Antibiotics and the public sector Vaccine Factories.
3. Launch a national initiative to make mass production of non-patented drugs through public sector pharmaceuticals and make them available in government hospitals and through fair priced drug stores to the people.
4. Ban all irrational Fixed Drug Combinations.
5. Re-establish the policy of manufacturing medicines from basic medicines in India and strive for self-sufficiency in pharmaceutical production as in the past.
6. Prohibit the import of formulations from abroad.
7. Ask Indian companies and foreign companies to issue Voluntary Licenses for the production of patented drugs at moderate royalties. Grant permission to Indian public-private sector companies to manufacture patented drugs at a reduced price under compulsory licensing patent law in case of disagreement with voluntary licensing.
8. Promote drug research at the national level. Initiate Drug Research on Open Source Drug Discovery model.
9. Revise the Standard Treatment Guidelines and ensure that they are implemented. Publish the drug formulary and make it available to health professionals.
10. Allot 3-5% of GDP to health sector

## Appendix 1

### Drug Price Rise from April 1, 2022 A few examples

Price in Rs for 10 Tablets/Capsule Injections mentioned separately			
Drug	Indication	Price till 31.3.22	Price from 01.04.22
Acetazolamide 250 mg	Heart Failure, Glaucoma	34.86	40.70
Amoxicillin 500 mg	Antibiotic	65.60	71.70
Atenolol 100 mg	Blood Pressure	34.00	38.70
Azithromycin 500 mg	Antibiotic	22.30	26.40
Cetirizine 10 mg	Allergy	17.30	18.40
Daonil 5 mg	Diabetes	14.60	18.30
Griseofulvin 250 mg	Fungal Infection	15.22	17.70
Haloperidol 5 mg	Mental Disorders	34.05	38.20
Ibuprofen 400 mg	Pain, Inflammation	7.00	11.50
Imatinib 400 mg	Blood Cancer	855.00	881.80
Isosorbide 10 mg	Heart Attack	6.34	8.10
Lithium 300 mg	Mental Disorders	14.17	16.30
Loperamide 2 mg	Diarrhoea	18.50	21.90
Lorazepam 2 mg	Anxiety Disorders	23.50	27.90
Metformin 500 mg	Diabetes	16.70	18.40
Metoprolol 50 mg	Blood Pressure	35.20	64.10
Nifedipine 10 mg Tab	Blood Pressure	8.29	13.70
Paracetamol 500 mg	Fever, Pain	10.00	11.70
Phenobarbitone 30 mg	Epilepsy	12.09	13.60
Propranolol 80 mg	Hypertension, Heart Disease, Migraine	11.70	13.00
Ranitidine 150 mg	Acid Reflux Abdominal pain	9.98	12.20
Sodium Valproate 500 mg	Epilepsy	70.40	77.10
Streptomycin 1 Gm Inj	Tuberculosis	9.93	11.59
Warfarin 5mg	Blood Clot	25.94	26.10
Zidovudine 300 mg	HIV AIDS	135.87	158.30

Source: <https://medicdialogues.in/news/industry/pharma/complete-list-these-872-essentials-will-cost-more-from-april-1-2022-90750>

## Appendix 2

For Further Reading:

1. The Patent Act 1970. WIPO Resources [http://www.wipo.int/wipolex/en/text.jsp?file\\_id=128092](http://www.wipo.int/wipolex/en/text.jsp?file_id=128092)
2. The Report of the Committee on Drugs and Pharmaceutical Industry (Hathi Committee Report). (1975). New Delhi: Ministry of Petroleum and Chemicals  
<http://www.scribd.com/doc/25194622/Hathi-Committee-Report-1975>
3. Drug (Price Control) Order 1979 <http://pharmaceuticals.gov.in/DPCO1979.pdf>
4. Order of Controller of Patents Mumbai on the Application for Compulsory License Under section 84(1) of the Patents Act, 1970 in Respect of Patent No: 215758: 9th March 2012  
[http://ipindia.nic.in/ipoNew/compulsory\\_license\\_12032012.pdf](http://ipindia.nic.in/ipoNew/compulsory_license_12032012.pdf)
5. What is Open Source Drug Discovery <http://www.osdd.net/about-us>
6. Decline of Public Sector Vaccine Manufacturing in India Sudip Chaudhuri March 2022  
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