Medical Tourism: A Study of Economic Perspective of Stent Pricing Cap

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Abstract—National Pharmaceutical Pricing Authority (NPPA) in February 2017 fixed a price ceiling for cardiac stents- a device that normalizes blood supply to the heart. It slashed prices up to 85% but the benefit of this price ceiling is yet to leave an indelible imprint on the Indian consumer and market at large. Of all the stents used in angioplasty across India, only 40% are made in India, the rest being imported and sold at a margin of over 300% to 1000%. The reports by NPPA have revealed alarming figures earned by importer, distributors and the hospitals across India. But the burden of these high prices is faced by the consumer as stents are an essential good in cases where they are required. India is catering to not only Indian patients but is also a medical tourism hub. The increased demand and limited supply by foreign companies which led to increased prices has now been combatted by government intervention in the form of price ceiling. The paper aims to shed light on the impacts this price ceiling will have on the medical tourism industry in India. It further evaluates the role of government intervention in managing healthcare cost. The profits on stents are going to decrease but the question is whether the benefit of this price ceiling will reach the patients directly or will there be loopholes that the market players could use for their advantage. This paper thus tries to evaluate the role of government intervention in managing healthcare costs in a country where insurance is merely existing.

Index Terms— Bare Metal Stents (BMS), Coronary Artery Disease (CAD), Drug-Eluting Stents (DES), Medical Tourism in India, National Pharmaceutical Prcing Authority (NPPA), Pricing Cap, Public Healthcare.

1 Introduction

MORBIDITY and mortality in India have always been on a rise. One of the major contributors to lifestyle diseases which causes an increase in morbidity and mortality in present day context is Coronary Artery Disease (CAD). CAD is a disease in which a waxy substance called plaque build-up inside coronary arteries. These arteries supply oxygen-rich blood to the heart muscle. However the build-up of plaque in the arties leads them to narrow down and causes a hindrance in flow of oxygen-rich blood to the heart. This ultimately leads to angina, or heart attack, and arrhythmias, or heart failure. To prevent such conditions a procedure called Percutaneous Coronary Intervention (PCI), also known as angioplasty is carried out. PCI involves placement of a stent inside the artery. A stent is a small mesh tube that is used to treat narrow or weak arteries. They help support the inner wall of the artery in the months or years after PCI. As per World Health Organization reports the occurrence of CAD has increased 4 folds in India over the last 40 years. India is going through an epidemiological transition that is, it has controlled communicable diseases but is still struggling to keep the figures low for non-communicable diseases. The Global Burden of Diseases Study has projected figures for 2020 for life lost by CAD in India as high as 14.4 million and 7.7 million among men and women respectively. These figures stood at 5.6 million men and 4.5 million women in 1990. The rapid urbanization in India over the past two decades has led to a burgeoning burden of CAD due to factors like diabetes, hypertension, smoking, central obesity, atherogenic dyslipidemia and physical inactivity. Following the trend of rapidly increasing occurrence of CAD in India, on February 13, 2017, The Ministry of Health and Family Welfare included coronary stents in the National List of Essential Medicines 2015 in accordance with Section 3 of Drug Pricing Control Order (DPCO) which aims to ensure that essential drugs are available to all at a reasonable price. The increased demand for Drug Eluting Stents (DES), Bio absorbable Vascular Scaffold (BVS), as well as Bare Metal Stents (BMS) led to increased prices however government intervention in the form of price cap is now ensuring affordability to all but has also stimulated a low supply by foreign companies which were the primary supplier of DES and BMS to India. The introduction of various forms of policy tools to grapple with the complex set of economic and ethical issues has been used by many countries to finance healthcare challenges. The price ceiling, or any other policy tool for that matter, does not guarantee the moderate behaviour by various players. The strategy of pricing cap changes the perception of citizens and may directly influence their behaviour. The patients may believe that the doctors are prescribing the stents out of necessity and not to earn massive profits. The trust of people in the NPPA and the government at large is a good way to attain political capital but it is not any form of guarantee that the these players will not find a loophole in this regulation and find a way to still make exorbitant profits. The benefit of these price caps and regulations by the government may or may not be directly transferred to the patients. India is a hub for medical tourism and the pricing cap in some instances has shown a doubt over the quality of stents that will provided in India now. The concerns over quality of stents are directly going to impact the medical tourism industry. In April 2017, many of the international stent companies, which have been exporting to India, applied for withdrawal of their latest products. The innovative stent technology being shared by such companies is also slowly and gradually being taken away from the access of Indian manufacturers. All factors might lead to a halt on the import of newer technology and better quality stents in India. The paper examines the impacts that this pricing cap might have on medical tourism industry of India which has been growing exponentially and is a major source of foreign re-

serve. The pricing cap by NPPA slashed the prices of stents by 85% and the direct impact should be the price cut in the hospital bills for angioplasty. The INR 65,000 crore market for medical devices in India is dependent on imports. This market is slowly and steadily being regulated. The increasing treatment cost, hospitalisation are being forced to provide quality services at competitive prices. However, these prices are high and still unaffordable to majority segments of Indian population. There is no formal system to monitor the quality of medical devices, technological innovation, and patient safety standards. India is facing an ethical dilemma when it comes to providing quality healthcare facilities to its citizens at a low and affordable price. The disposable income of low and middle class Indian is not high enough and Indians are still getting in terms with the use of insurance as a tool for covering health risks. Factors like these lead to an inadequate source of finance for healthcare. In 2014, 43.9 percent of financing for angioplasty was done out-of-pocket. As per NSSO's 71st round, one fifth of the hospitalization due to CAD were paid for by borrowing or by sale of personal assets. There is a catastrophe in financing healthcare expenditure where insurance has no or limited role to play. In situations like these NPPA's regulation does somehow provide access to affordable healthcare. Stent pricing cap is only a tiny and almost negligible step in the direction of affordable angioplasty. The high costs of angioplasty are dependent on various factors such as the fees of the doctor, the time duration of hospitalisation, medicines prescribed, whether it's a public or private hospital, the package opted by the patient, etc. These factors in term depend on various other factors for instance, the package opted by the patient might depend on his income, the medicines prescribed in turn would depend on the doctor-as India has no regulation that a generic name of the drug needs to be on the prescription instead of the name of the medicine- etc. These factors make up a complex web of series of issues which need to be addressed if the government really wants to create value for patients. The paper tries to first evaluate the role of government intervention in managing healthcare cost and it then further tries to address alternative practices that the government might adopt in order to manage healthcare costs.

1.1 Conceptual Background

With the continual soaring figures of CAD in India over the past few decades there has been an impact on the socio and economic conditions of masses at large. India is struggling with a challenge to put ethics and morals over healthcare and finance. The introduction of policy limits and regulations has somehow become a necessity for non-regulated medical sector in India. The medical sector comes as a necessity to most of the citizens as health is non-negotiable. The unregulated prices of treatments, implants and operations along with the skyrocketing fees of doctors and hospitals has made quality medical care a distant dream for lower and middle class Indians. However the lifestyle diseases are not differentiating between economic and social background of the person on the receiving end. Thereby, majority of citizens need affordable and better quality medical facilities.

The price cap on stents is being seen as a measure to address the burden of heart diseases in the country. It is being praised by the patients and others alike however it is also speculated that NPPA has thrown the baby out with the bathwater. The low dependence on insurance leaves the burden on the government in healthcare. With such a large population and alarming figures of CAD, the government had to come up with a policy tool to intervene and modulate the prices. The benefit of these prices is likely to transfer to the consumer however there may be loopholes in the framework and implications of this regulation.

1.2 Objectives

The paper first tries to make the reader understand the basic concept of cardiovascular diseases and what stents are. Then it further describes the problem and why there is a need for government intervention. The main objectives of the paper are:

1. To examine whether the pricing cap on coronary stents will affect medical tourism in India.
2. To elaborate on the role of government intervention in managing healthcare costs.

1.3 Methodology

I have used a mix of qualitative and descriptive analysis for my paper. I read published papers as well as newspaper articles on the same lines and analysed the situation.. Furthermore, I have used macroeconomic principles for highlighting the effects this pricing cap will have on medical tourism and healthcare facilities in India.

As a part of descriptive analysis I have used various sources and collected secondary data to make graphs and figures. Other figures have been included in the paper from direct sources.

1.4 Limitations

This study undoubtedly has its own limitations. For my research the limitation were many in data collection. The paper is concentrating on a regulation that was implemented in Feburary 2017 which is eight months prior to when the paper is being written. So the duration is small and data has not been collected by any authentic source which could be quoted herein. The other limitation is that with the implementation of GST in the recent days a proper analysis of the profit and excise duties could not be obtained.

2 Literature Review

2.1 Review

In order to grasp what this paper is attempting to study, it is imperative that we first understand what these medical terms are and how the occurrence of the CAD and other lifestyle diseases has been increasing in the past few decades due to urbanisation.

The main reference paper for this paper is bu Ramesh Bhat and Denny John (2017) (Bhat & John, 2017) [1]. The paper starts off by talking about the public interest litigation (PIL) filed by lawyer Birendra Sangwan which led to a turmoil in and finally resulted into the pricing cap of stents. The paper further sheds light on the lack of dependence on insurance of Indians and how the government needs to implement better policy tools for actually letting the general mass benefit from such regulations. They have highlighted the need for "establishing Medical Technology Assessment Board (MTAB), similar to that of National Institute of Health and Clinical Excellence (NICE) in the UK or Health Intervention and Technology Assessment Program (HITAP) in Thailand- so that each new drug, medical devices, or technology could be subjected to a detailed assessment of clinical effectiveness, safety and cost-effectiveness." The paper's prime focus has been affordable and legally applicable healthcare opportunities to all patients alike. The paper has criticized the healthcare system of India but in a healthy way. It argues that such regulations for public interest will only benefit the public if there is actually a "vision" for a "long-term solution".

The paper co-authored by Sunita Maheshwari, B.A. Animasahun, O.F. Njokanma (Maheshwari, Animasahun, & Njokanma, 2012)[6] talks about the booming medical sector in India and how good quality medical facilities in India have proved to be a boon for international patients (for low cost treatment) and for India (as it brings in foreign exchange). The paper also reviews the source of funding of international patients. The method used in the paper is "cross-sectional, and analytical study during the period between May 2009 and October 2009". After analysing the primary data the paper concludes on a note that "there is a need for local development of facilities and training of personnel" to provide specialised healthcare as it has an "added advantage that such facilities would save foreign currency and help boost our economy".

To start off, the paper titled Dr. I.B. Vijayalakshmi (Dr. I.B. Vijayalakshmi, 2017)[2] applauds the government for taking a "historic" and "path-breaking" step in the healthcare sector. It further brings into light the high prices being charged by private hospitals which range from Rs. 1,50,000 to Rs. 4 to 5 lakhs, making it inaccessible for ordinary man. It argues that doctors give incentive based recommendation for angioplasty and stent insertion, which leads to an excess demand for stents in a way. Dr. Vijayalakshmi further talks about the profits being made by manufacturers, distributors and hospitals which led to pricing cap in the first place. She concludes on an optimistic note and hopes that hospitals in India become more transparent and people benefit directly.

3 Medical Tourism

3.1 India and Medical Tourism

Medical Tourism can be broadly defined as a provision of 'cost-effective' private medical care in collaboration with the tourism industry for patients needing surgical and other forms of specialized treatments. The first record of boom of medical tourism is attributed to the efforts for promotion by Indian government in 2002. Cardiac bypass, bone-marrow transplant, eye surgery, cosmetology and hip replacement are the most popular treatments in India.

Medical Tourism in India accounts for 9.7 per cent of the GDP in 2017 and is the third largest foreign exchange earner for the country. (Indian Brand Equity Foundation, IBEF) [4]. Figure 1 shows how the share has been increasing since 2006. The compound annual growth rate (CAGR) was 1.8% in 2006 and a decade later in 2017 it is at 12.05%.

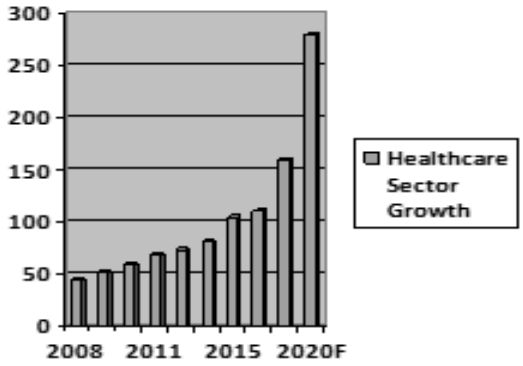

Figure 1 Growth of Healthcare Sector in India

Table 2 Medical Tourism Index

Rank	Country	Medical Tourism Industry	Facilities and Services	Country Environment	MTI Overall
1	Canada	74.14	77.01	78.69	76.62
2	United Kingdom	72.58	76.94	77.3	74.87
3	Israel	72.58	81.6	67.56	73.91
4	Singapore	70.79	76.63	73.56	73.56
5	India	75.94	77.1	63.26	72.10

Table 1 Projected Medical Tourist and Revenue from Medical Tourism

Year	1st Scenario (10% growth)		2nd Scenario (20% growth)		3rd Scenario (30% growth)	
	Medical Tourists (million)	Revenue (million $)	Medical Tourists (million)	Revenue (million $)	Medical Tourists (million)	Revenue (million $)
2010	.75	1067.5	.75	1067.5	.75	1067.5
2011	.83	1174.3	.90	1281.0	.98	1387.8
2012	.91	1291.7	1.08	1537.2	1.27	1804.1
2013	1.00	1420.8	1.30	1844.6	1.65	2345.3
2014*	1.10	1562.9	1.56	2213.6	2.14	3048.9
2015*	1.21	1719.2	1.87	2656.3	2.78	3963.6

Table 1 shows that in 2016, India was ranked the top globally as a medical tourist destination. With a score of 75.94 India beat Canada, Israel, Singapore and U.K. with scores 74.14, 72.58, 70.79 and 70.38 respectively in the Medical Tourism Index compiled by the International Healthcare Research Centre. The world class quality, low cost and timely procedures ensure that India has a top ranking globally. The patients coming from different parts of the world are appreciative of the hospitable environment in India and the fact that a large percentage of population in India is English speaking is advantageous to these international patients.

3.2 Impact of Pricing Cap On Medical Tourism

3.2.1 Impact on Foreign Exchange (due to changed behaviour of international patients)

Any notification should be considered only if it can bring down the overall cost for patient without denying them the option to avail the treatment of their choice. Additionally such notification lead to a significant impact on the consumption patterns of patients. The international patients who come to India for medical treatment are enticed to come due to the factors mentioned earlier in this paper. But notifications like pricing cap on the stents may lead to a negative impact on this industry. The fact that foreign companies like Abbott are being averse to exporting their products to India makes the international patients sceptical about the quality of stents that will now be used for their angioplasty. The consumer behaviour is surely to be affected after such price ceilings.

The fact that India has competitive and highly skilled cardiologists who have served in different countries would now be immaterial when the quality of stents being used is questionable. The foreign patients who come in are better off than majority of Indian patients who are undergoing angioplasty. These foreign patients are not the type who would be willing to compromise on the quality of stent being used in angioplasty. Thereby, they would prefer to be treated in a country, maybe their home country, where the quality of stents is not compromised even if it means expensive angioplasty. And the decrease in their arrivals would undoubtedly lead to a decrease in the Foreign Exchange.

The table given above gives the projected number of medical tourists in India and revenues from them up to 2015. Since the data on the exact number of medical tourist arrivals and revenues are not readily available, number of medical tourists and earnings has been projected and earnings from them till 2015. 1st Scenario believes 10 percent growth due to global slowdown in recent years, while 2nd Scenario presumes 20 percent growth that is on the basis of past 9 years growth and 3rd Scenario assumes 30 percent growth. The projected number of medial tourists in India in 2015 would be stuck between 1.21 million and 2.78 million. In 2015, the projected revenue would lie between US $ 1719 million to US $ 3964 million.

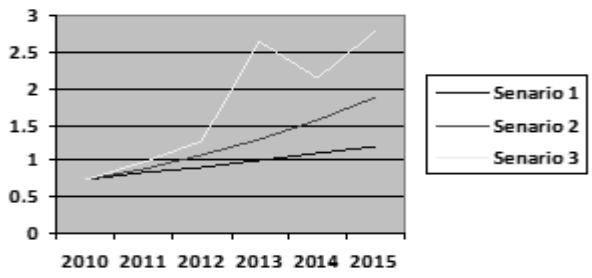

Fig 2 Medical Tourist in India (in millions)

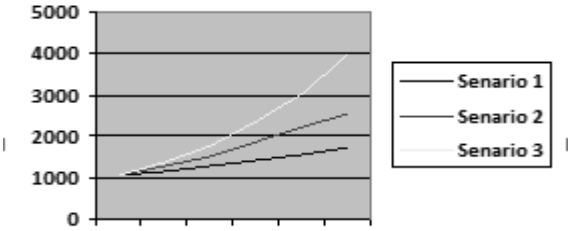

Fig 3 Revenue from Medical Tourism In India (million $)

3.2.2 Impact on Make in India

The pricing cap not only makes availability of existing generation of stents an issue but also deprives Indian market of the newer and better technology stents which were yet to come. The international manufacturers who would supply to India due to the high margins that they could attain would now be averse in doing so. Some international companies were also sharing innovation and technology with Indian manufacturers. This sudden price cap has led to a halt in this technological spill-over. Indian will now be a late receiver of advance technology.

This however has a positive side to it too. Since the demand for stents is relatively inelastic, the patients undergoing angioplasty would still require stents. If the international companies do not provide stents with the imposed price cap, it will give a chance to domestically produced stents to expand their market share. The domestically produced stents might be of cheaper quality however they do certainly meet the quality standards laid down by the regulatory bodies. The patients demand would now be met by the domestic supply. Thus, there is expansion of Make-in-India.

3.2.3 Impact on Employment

The tourism industry is a prime sector for employment in India. The medical tourism industry has potential of generating 3 million job opportunities across India in by the end of 2020. The demand for AYUSH (Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homeopathy) and herbal products is surging in India and abroad. (Vira, 2016)[10]

For proper functioning of hospitals or the medical industry at large there is a great need for availability of high quality healthcare professionals and nurses. The medical staff needs to be available round the clock. Conditions such as these along with the need for good helpers at the hotels where these patients stay is necessary. Such factors lead to an increase in the employment opportunities. The popularity of Indian hospitality across the world encourages the companion of the patient to explore India. This sector is an example of how India is profiting from globalization and outsourcing. (Shanmugam, 2013) [7]

The pricing cap as speculated is going to decrease the inflow of foreign patients in India coming for angioplasty. Angio-

plasty forms a huge segment of medical procedure for which medical tourist come to India. The fall in number of medical tourists is going to impact the employment of the healthcare professionals and nurses along with the hotel staff that is hired for those accompanying the patients.

3.2.4 Impact on Foreign Direct Investment

The phenomenal growth in medical sector in India has led to an increase in FDI in India in the medical sector. The medical tourism only helped to increase this FDI by increasing demand for better quality hospitals and hotels. The multinational players have consistently been focusing on the Indian healthcare market and trying to enlarge their presence through partnership and investments. Since January 2000, FDI in the medical sector in India has been permitted up to 100 per cent. (Sunitha L F, 2013) [9]. The hospital and diagnostic centres attracted Foreign Direct Investment (FDI) worth US$ 4.34 billion between April 2000 and March 2017, according to data released by the Department of Industrial Policy and Promotion (DIPP).

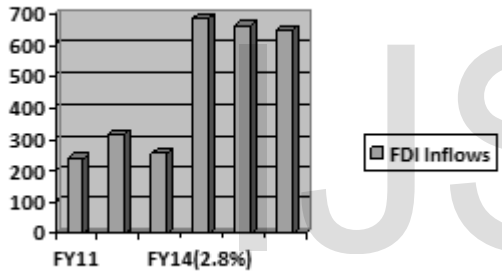

Fig 4 FDI Inflows in Healthcare Sector in India

The Indian government does not have a clear road map and is non-transparent in terms of its regulatory environment. Then further policies like a price ceiling deter multinational players to invest in India. If the government uses contractionary policy tools then the result would be low FDI. Consequently a low FDI would mean that India would lack necessary infrastructure.

3.2.5 Impact on Public Resources and Inequality

Medical Tourism has impacts on public resource allocation of the destination country as well as the departure country. In the destination country i.e. India, in our study, the consumption of public healthcare resources is done through redirecting them to the private sector. On the other hand, in the departure country i.e. U.K, U.S.A, etc., in our study, the consumption of healthcare resources is through the provision of follow-up care of medical tourists. The over use of public resources by private sector makes the resource provision unaffordable, and therefore unattainable to middle income group. India is country where the middle income group forms a large segment of demography. Thus, there is huge inequality. (Johnston)[5]

Once the pricing cap is enforced and there is a fall in medical tourist in the destination country, eventually public resources would be utilised for the public and would reduce inequality that is pertaining in the country due to excessive use of resources by private healthcare sector. It would also mean that the public healthcare sector would emerge and the brain drain of medical workers would stop to a certain extent. Thereby improving the quality of public healthcare provisions in India.

4 Role Of Government Intervention In Management Of Healthcare Costs

4.1 Healthcare Sector and Government Intervention

Government intervention refers to the various policy tools that a government can use in order to get market outcome in equilibrium and avoid a situation of market failure. The medical market is a market where there is a dire necessity for the government to intervene whenever there is slightest chance for a failure. The medical market is most vulnerable market to failures as the market faces a number of problems which include adverse selection, moral hazard, asymmetric information, monopoly, ethical concerns and agency. This is also the reason as to why medical or healthcare market is different from the other goods market. There are several instances where government intervention is the only solution to unhealthy market practices in the medical market.

4.2 Why Market Failure May Arise

The problem of asymmetric information is most easy to be explained. The consumers-or patients- have lack of knowledge and are likely to suffer. The doctor on the other hand is an expert and a trained professional who is guided by profit motive for the hospital or self at large. The asymmetric information problem in medical market usually is a mix of the doctor-patient relationship and the amount of knowledge a patient has regarding his/her medical condition. The consumer-patient- (principal) and producer-hospitals or doctors- (agent) do not trade efficiently and one has better knowledge than the other and manipulates that knowledge in order to make excessive and out-of-proportion gains.

Doctors, especially across private hospitals, recommend treatments in order to make money. The private hospitals pay their doctors a fixed salary and perks or bonus depending on the amount of revenue a doctor is able to generate for the hospital. The doctor's personal motivations may lead to ordering extra tests mainly to earn money or protect the doctor from potential legal liability; to prescribing more expensive drugs, to gain favour with pharmaceutical companies and to using reciprocal referrals to specialists in other fields to increase income. (Stephen, 1996) [8] This unethical practice that hospitals undertake in order to gain more profits is not justified, exploitative in nature and to certain extent is inhumane. The government regulates such inhumane acts by intervening and putting in regulatory guidelines which make such practices illegal.

The government interventions become even more necessary when the disease or medical condition's occurrence is increasing in the nation and the demand supply equilibrium is lost.

This excess demand sometimes even leads to increased instances of charlatans, which is not only an unfair practice but also a major concern for any person's health.

When the healthcare market fails the easiest way to fix the problem is by some kind of technical intervention such as a price control, a tax, or a subsidy is warranted. (Stephen, 1996) [8]. But a price control or a price ceiling in a market is treated as a new price and the market comes back in equilibrium. Now the question stand whether a new price really alters the behaviour of the consumers or producers.

4.3 Anticipations about Government Intervention Via Pricing Cap On Stents

The introduction of price caps surely leaves an imprint on the consumers' mind that a cheaper product is not a quality product and he/she is definitely compromising on the quality of healthcare device he/she is to consume. However in certain countries, like India, where the general population is not covered by insurance and the price ceilings somehow come as a boon to a major proportion of consumers-or patients.

The pricing cap on stents has made the stents affordable to a large segment of the population. However, there is still anticipation about the cost involved in the entire process of angioplasty. Currently the coronary stent market was valued at 3557.7 crore in 2016 and is expected to expand at a CAGR of 14 percent from 2016 to 2026, predicted by Future Market Insights.

Apprehensions that pricing cap would solely bring down the cost of angioplasty are majorly incorrect. The fact that hospitals charge anywhere between Rs. 50,000 and Rs. 3,00,000 for angioplasty is also what needs to be considered for cutting down the cost of the entire procedure. The hospitals, especially private hospitals charge their patients on basis of the various packages they provide for angioplasty-"cardiac packages". The lower cost of stents would lead to lower profits for private hospitals and thereby some hospitals like the Mumbai Metropolitan Region, have started reworking their cardiac packages. (India, 2017) [3]

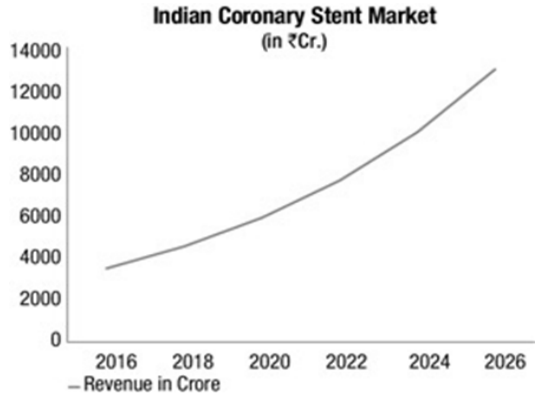

Fig 5 Revenue of Coronary Stent Market in India

In such instances there is a high possibility that the existing market players are going to find loopholes or are going to find a new way to legally make new profits. Thus, such regulations are beneficial only if contemplated results can be achieved. A cap on a single factor cannot promise requisite results. For a relief to the general masses there is need to overall review the process i.e., doctors' fees, hospital charges, medication, etc.

5 Suggestions

The suggestions being made in this paper are normative as healthcare provision by the government in itself is a normative concept. In this paper the main suggestion would be to expand the market via public funds and make available the stents in a larger quantity so that the pressure on prices is eased.

The next possible thing that the government should undertake is that it must ensure that the quality standards are maintained for the stents being manufactured in India. So that Indian manufacturers gain and imports are reduced. The better quality stents would remove the cloud of doubt hovering on the international patient's minds about Indian manufactured stents. Cheaper and quality stents would prove to be an incentive for international patients who seek treatment in India.

Considering that stents are a necessity good as they are vital for the treatment of CAD the government could enter into trade agreements with USA, Germany and other exporting nations. The trade agreement could have clauses which would put the duties on the stents to a lower percent. These low duties would mean that the exporter as well as the importer would gain. The exporter would consider India as a country where they could conduct business with ease, and the importer on the other hand could pass on the lower duties to the actual consumers. This would also help eradicate the parasitic middlemen in the market.

The alternative to angioplasty are available in market and should be promoted by the government as a means of treatment. The natural angioplasty is a process which does not include stents and this makes the entire issue of stent pricing a talk of past. The government could provide incentives to hospitals to promote the natural angioplasty.

Pushing insurance sector and making insurance a key tool for better healthcare to all. There is lack of dependence on insurance of Indians. (Ramesh Bhat, 2017) [1]. The government could either draw guidelines for insurance companies or it could inculcate the provision of covering CAD treatments under its national insurance policy. The government should try and cover people from lower income strata and provide them with basic medical facilities free of cost and easy accessible and available.

The aim of the government is to provide affordable and accessible stents to the consumers which can be achieved in ways which will further expand the market and not contract it.

6 Conclusion

Through my study, I have shown that there is a huge gap which will need to be filled when the pricing cap affects the market. Not only will there be an impact on medical tourism, but also on other market players and consumers at large. The

paper has presented issues relating to medical tourism and government intervention at large.

Make in India has gained momentum in the last three years. India is advancing in medical science but it lacks in medical appliances to a certain extent. Medical appliances being produced in India are based on technology being provided by foreign companies. If Indian manufacturers can innovate and make cheaper stents this would help the economy at large.

Furthermore, all aspects must be fast tracked and transparent. India would go well by adopting a comprehensive health-technology assessment that is a multidisciplinary process. The issue of stent pricing is not just an economic issue, it is ethical as well, which makes it necessary to be dealt with in a transparent and unbiased manner.

I have made peculiar and some naive suggestions. However if these suggestions are accepted in the true spirit they are surely to bring a change that will make stents available to masses at an affordable price.

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