



## IMPACT OF COVID-19 ON PHARMACEUTICAL SECTOR AND LEADING STOCKS

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### ABSTRACT

The COVID-19 Disease was declared a pandemic by World Health Organization on 11<sup>th</sup> March 2020 and since then, it has affected healthcare and pharmaceutical sector to a great extent. The purpose of this study is to examine how this pandemic has impacted pharmaceutical industry. The following article contains study of short term and long term impacts of this disease on pharmaceutical sectors and how they are going to affect our society in future. This article also focuses on the change in prices of pharmaceutical shares of some leading sectors like Aarti drugs, Sun pharmaceuticals, Dr, Reddy's lab, Cipla Ltd. before and during the crisis period. The results reported positive as well as negative impacts that society might have to face in the coming years. We have also seen a huge hike in the share prices of some Indian pharma sectors in the studied ten month period. With this, some international pharma sectors were also studied. Lastly, this article also includes social responsibilities taken by leading pharma industries.

**KEYWORDS:** COVID-19, Pharma, Pandemic, Crisis, Stocks.

### INTRODUCTION

Novel Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in Wuhan, China and was declared as a pandemic by World Health Organization (WHO) on March 11 2020. As of 29 September 2020, more than 33.4 million cases have been reported.<sup>[1]</sup> The damage caused by COVID-19 is not confined to only selected businesses but it is a widespread condition that is expected to keep the economy sick for a long time. Although, the magnitude of impact may vary from sector to sector, there are some sectors which have suffered the most while some which have benefited.<sup>[2]</sup> This article deals with the long term as well as short term impact of COVID-19 on pharmaceutical sector. It also includes change in prices of pharmaceutical shares before and during the crisis of some national level pharmaceutical industries such as Divis Laboratory Ltd, Dr. Reddy's laboratories, Glenmark Pharmaceutical Ltd, Lupin Ltd, Sun Pharmaceuticals Ltd and percentage change in their prices. We have also discussed social causes which have been initiated by some pharmaceuticals in time of clinical need.<sup>[3]</sup>

Indian pharma sector is the third-largest in the world. It manufactures almost 60 % of the vaccines used globally. Millions across the world use generic drugs produced by Indian manufacturers. More than 250 factories in the country have been approved by the US Food and Drug

Administration (FDA) as well as the UK Medicine and Healthcare Products Regulatory Agency (MHRA).<sup>[5]</sup>

Although, pharmaceutical sectors are one of the least affected due to this pandemic, there might still be a large number of impacts which may either leave with the fading of the virus or will stay with us for a long time. Both short term and long term impacts are considered. Current study assessed pharmaceutical market crisis during covid-19 era, discussing short term as well as long term impacts, first at India's national level and then at global level. Identification of these effects is essential for more informed planning to overcome upcoming challenges.<sup>[4]</sup>

#### Short term impact

These are the impacts that will last for a short period of time, or the things that will have effect presently rather than in the distant future.

These include

- (1) Panic buying: It is the action of buying large quantities of a particular product or commodity due to sudden fear of an upcoming shortage or price rise. There has been panic buying of medicines, especially OTC drugs which are used in cold and fever. This may cause intermittent shortage in the market and thus medicine may not be available for the people who really need it. Studies reported that pharma markets grew to about 9% in March due to

panic buying.<sup>[6]</sup> Various cities across India saw a rush to buy grocery and other essentials on the very first day of nationwide lockdown.

- (2) Demand alteration: There is an induced demand of oral medications for cold and fever which has led to scarcity in the market. Also, there is shortage due to inconsistency in the supply chain from countries like India and China. (FDA) has given out a shortage list which includes following drugs which are now used in COVID-19 treatment. Hydroxychloroquine and chloroquine, azithromycin, dopamine, dobutamine, fentanyl, heparin, Midazolam, propofol and dexmedetomidine.<sup>[7]</sup> Medicines used in treatment of Covid-19 including respiratory treatment, pain reliever and sedatives has seen an increase in consumption of about 100-700% since beginning of January.<sup>[8]</sup>
- (3) Shift of communication: Due to the social distancing norms, there has been a shift in communication from the traditional face-to-face manner towards remote interactions through tele-communication. The number of patients visiting physician's clinic reduced to about 70-80% in the US.<sup>[8]</sup>

Change in Research and Development (R&D) processes is yet another short term impact of Covid-19.

### Long term impact

These are the impacts which will be staying with us for years to come. They may also lead to variations in the predictable ways known to us and our understanding of how things work.

Some long term impacts are listed below.

- (1) Slowing down of growth of Pharmaceutical industries. We might face a strike in the growth of pharmaceutical industry which may further affect the economy of that particular country. This will be more challenging for countries like India, whose economy largely depends on the pharmaceutical sectors.
- (2) Delayed approval for non covid-19 related drugs: As the whole world is facing crisis due to this, there may be some delay in the approval of any drugs which are not related to the treatment of Covid-19. Presently, the main focus of each country is to find a cure for this virus which may lead to negligence of

other health issues which are considered less significant at this moment.

- (3) Change in consumption style. Presently, all the individuals are more concerned about cleanliness of the environment and personal hygiene. Hand sanitizers, which were not very popular before the pandemic, now have the public eye. This type of behavioral changes are probable to continue for a long period of time.
- (4) Moving towards self-sufficiency. India and China are the main exporters of Active Pharmaceutical Ingredients (API) in the world. But due to export bans from these countries, a lot of other countries are facing shortage of supply. This has led to the government of many countries to consider self-sufficiency of supply chains. Some countries have come up with regulations in case of shortage during this type of crisis.<sup>[9]</sup>



Figure 1: Best pharma stocks to buy.

The entire world has been under great pressure due to Covid-19 pandemic. The coronavirus situation has not only caused severe damage to the health of the people, but also to the economy of the country. Owing to this crisis, the Indian stock market witnessed one of the greatest crashes ever since the start of this year. Almost all the industries are facing losses. Even with such a recorded drop in the share prices across the board, there is one sector which is showing glimmer of hope, "The pharmaceutical industry".

Investors have now come to appreciate the potential of pharmaceutical stocks, which were overlooked to some extent before the crisis. The pharmaceutical stocks have shown a major hike since the start of 2020.

## RESULT

Table 1: Situation of pharma share market before and during the crisis period (national level)<sup>[13]</sup>

Pharmaceutical Stock	Before Crisis (Nov 2019) Price (INR)		During Crisis (Sept 2020) Price (INR)		% Change in one year
	Open	Close	Open	Close	
Dr. Reddy's Lab	2974.7	2913.8	5199.9	5129.8	76.05 %
Cipla Ltd.	469.65	465.60	772.10	774.80	66.40 %
Lupin Ltd.	803.50	800.65	1008.60	1008.95	26.01 %
Sun Pharma	458.40	449.85	495.00	510.10	13.39 %
Aarti Drugs Ltd.	520.30	520.00	3025.00	3038.85	484.39 %
Aurobindo Pharma	454.00	449.90	815.65	828.10	84.06 %

Divi's Laboratories	1795.30	1786.20	3100.00	3097.15	73.39 %
Biocon	283.20	281.65	430.00	450.40	59.91 %
Alkem Laboratories	2026.10	2029.10	2881.00	2775.45	36.78 %
Cadila Pharmaceuticals	259.05	254.15	389.10	390.60	53.68 %

We have compared the average share prices of some top Indian Pharmaceutical sectors in November 2019 and September 2020. The opening price and closing price of each share was monitored from before and during the crisis period. Lastly, overall change in the percentage of

prices in ten months period was calculated. Some stocks like Aarti Drugs Ltd., Aurobindo pharmaceuticals and Dr. Reddy's laboratories showed a huge hike in the prices during crisis.



Figure 2: Change in share prices of pharmaceutical stock.

Table 2: Situation of pharma share market before and during the crisis period (global level)

Pharmaceutical Stock	NYSE Price \$ (USD)	52 Weeks range	Profit Margin
Pfizer Inc.	36.39	27.88-40.97	28.81 %
Johnson & Johnson	147.11	109.16-157.00	18.86 %
Biogen Inc.	282.04	219.70-374.99	40.91 %
Merck & Co.	82.76	65.25-92.64	22.20 %

These are some of the average price of shares (as of 29 Sept 2020). Also, the 52 week range of price has been monitored. Each sector showed a positive profit margin and is in the race to find a vaccine for Covid-19. Soon enough, we might see positive outcomes.

Some other global sectors are listed below.<sup>[10]</sup>

1: Gilead Sciences Inc. A research-based Biopharmaceutical Company.

It is currently in Phase-3 trials for Remdesvir, a Covid-19 drug.

2: Merck KGaA, founded in Darmstadt, Germany.

The Company is active in all areas of pharmaceutical production and food safety and is heavily involved in the performance material sector for a broad and diverse range of industries.

3: Moderna Inc.

It is a clinical stage biotechnology company that develops therapeutics and vaccines based on messenger

RNA for the treatment of infectious diseases, immunoncology, rare diseases, and cardiovascular diseases.<sup>[10]</sup>

### Pharmaceutical industries in social cause<sup>[3]</sup>

Various pharmaceutical companies are coming forward amid this pandemic and trying to help others and alleviate the burden from most affected countries based on their capabilities.

AstraZeneca (AZ) has announced a donation of 9 million face masks to various countries facing worst struggle due to the virus.

Eli Lilly has offered great support to its diabetic patients considering the economic issues faced by people which may leave them incapable of accessing lifesaving medications.

Bayer had donated three million Resochin (chloroquine) tablets to US government for use in Covid-19 treatment.

## DISCUSSION

This study signifies that Covid-19 may be linked with a number of short term as well as long term impacts, especially on the pharmaceutical industries. Identifying these impacts may help us to be more prepared when challenged with such circumstances in the future. Identification of such impacts is essential for good decision making and informed planning. This may be more important for the emerging countries.

There is escalation in prices of pharmaceutical shares, both worldwide and at domestic level since the occurrence of this disease. As compared to other industrial sectors and professions, in this pandemic situation, Pharmaceutical industry and profession remain as it is and remain least affected. On the contrary, we have seen great profits and drastic growth of market in the last few months.

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