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NEWS LETTER
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Healthcare Stocks Surge On Renewed Covid Fears; Dr Lal PathLabs, Cipla Rise Up to 6%

Healthcare Stocks Rise: Shares of healthcare service providers jumped on Wednesday amid renewed fears of Covid outbreaks. As reports of a sudden spurt in Covid-19 cases in China, Japan, the United States of America, the Republic of Korea, and Brazil surface, a meeting on the COVID-19 situation is being held by Union Health Ministry on December, 21.

Among the individual stocks, Vijaya Diagnostic Centre surged 8 per cent to Rs 461.95 on the BSE in intra-day trade today. Dr Lal PathLabs soared 6 per cent to Rs 2,434.70, followed by Metropolis Healthcare (up 5 per cent at Rs 1,342) and Thyrocare Technologies (up 3 per cent at Rs 630.30).

Besides these four stocks, IOL Chemicals & Pharmaceuticals, Supriya Lifescience, Panacea Biotec, Vimta Labs, Glenmark Pharmaceuticals and Granules India from the S&P BSE Healthcare index were are p in the range of 4 per cent to 12 per cent on the BSE. In comparison, the S&P BSE Sensex was down 0.22 per cent at 61,564.

“The news of rising COVID cases coming out of China is concerning, we need not panic given our excellent vaccination coverage and track record. We must continue to trust and follow the guidelines set by the Government of India and Ministry of Health & Family Welfare, Government of India”, Serum Institute CEO Poonawalla tweeted on Wednesday.

VK Vijayakumar, Chief Investment Strategist at Geojit Financial Services, said, “The near-term market construct is not favourable for equities. The rising Covid cases in the US, Korea, Brazil, and China is an area of concern. The situation is dire in China. This might impact market sentiments. Moreover, there are no near-term triggers to take the market higher.”

However, in past one year, most of these stocks have underperformed the market by recording negative returns, as compared to 9 per cent rise in the benchmark index. The contribution of covid and allied business to total revenue of these companies has declined substantially in September quarter, as compared to previous year quarter (Q2FY22). While Q1 FY22 saw the highest contribution to revenue coming from RT-PCR testing and COVID allied tests like IL-6 and D-Dimer, it also significantly impacted the non-COVID portfolio due to nationwide mobility restrictions.

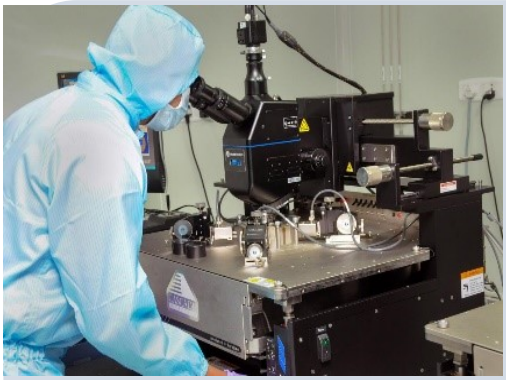
Post the second half of Q2FY22, the instances of COVID-19 infections started declining meaningfully and contribution of COVID -19 testing to overall revenue tapered as also the realizations due to price caps introduced by various states for RT-PCR tests.

Aside from diagnostics stocks, pharma company and hospital stocks were also trading higher. Max Healthcare Institute and Apollo Hospitals share price jumped around 1 per cent. In comparison, the BSE Sensex was trading 0.5 per cent higher. On NSE, Divi’s Labs and Apollo Hospitals were the top gainers, rising up to 1.5 per cent. Cipla share price also jumped 1.31 per cent on NSE. Note that diagnostics and healthcare stocks lost some momentum this year as demand normalised following Covid-related dislocations. Nifty Pharma index is down 8 per cent YTD.

Dr. Lal PathLabs share price has tumbled over 29 per cent in a year, while Metropolis Healthcare shares and Vijaya Diagnostic Centre stock price has fallen 60 per cent and 18 per cent, respectively, during the same period. However, the Nifty Pharma index was up more than 2 per cent today. It is worth noting that India has been reporting around 1,200 cases a week with the COVID-19 tally since March 2020 at 4.4 crore.

Currently, there are around 3,500 active infections, according to the data, “In view of the spurt in positive cases, it is essential to gear up the whole-genome sequencing of positive case samples to track variants through Indian Sars Cov2 Genomics Consortium (INSACOG) network. Such an exercise will enable timely detection of newer variants, if any,” said a letter to State governments signed by Health Secretary, Rajesh Bhushan on Tuesday. (Source: News 18)

Researchers From India, Israel, US Trying To Develop Drug To Treat Rare Disease 'GNB1 Encephalopathy'



Researchers at the Indian Institute of Technology (IIT) Madras, Tel Aviv University, and Columbia University are studying a rare genetic brain disease called "GNB1 Encephalopathy" and trying to develop a drug to treat it effectively. With less than 100 documented cases worldwide, GNB1 Encephalopathy is a kind of neurological disorder which affects individuals in the foetus stage.

Scientists say delayed physical and mental development, intellectual disabilities, frequent epileptic seizures, are among the early symptoms of the disease and since genome-sequencing is an expensive procedure, not many parents opt for it early on. According to Haritha Reddy, a former PhD scholar at IIT Madras, a single nucleotide mutation in the GNB1 gene that makes one of the G-proteins, the "Gβ1 protein," causes this disease.

"This mutation affects the patient since they are a foetus. Children born with GNB1 mutation experience mental and physical developmental delay, epilepsy (abnormal brain activity), movement problems. To date, less than a hundred cases have been documented worldwide.

"However, the actual number of affected children is probably much greater as diagnosis is not widely available since it requires a sophisticated and expensive procedure," Reddy told PTI from Israel, where she is conducting the research. "Every cell in the human body has a wide variety of signalling molecules and pathways that help in communicating with other cells and within itself. The major signalling mechanism used by cells is 'G-Protein Coupled Receptor' (GPCR) signalling," she added.

The GPCR is a receptor that receives a signal (e.g. a hormone, light, neurotransmitter) from the outside of the cell and transduces it to the inside of the cell. "GPCR is present in the cell membrane and has a G-protein (αβγ) attached to it from inside the cell. G-proteins are the immediate downstream molecules that relay the signal received by the GPCR. These G-proteins are present in every cell, and any malfunction will cause disease," she explained.'

Mutations in GNB1 gene cause the neurological disorder (GNB1 Encephalopathy) characterised by general develop- mental delay, epileptiform activity in the electroencephalogram (EEG) and seizures of several types, muscle hypotonia or hypertonia, and additional variable symptoms, are seen in the patients. According to Amal Kanti Bera, Professor, Department of Biotechnology, IIT Madras, as GNB1 encephalopathy is a rare and less-known disease, not much research has been done on this.

"We don't know the mechanisms that underlie the disease. We don't know how to treat this disease. Therefore, it is import to do research on GNB1 encephalopathy. We have a long way to go. It is not easy to develop a drug for treating this disease effectively," he told PTI. "We are in the process of developing preclinical animal models of this disease. Hopefully, in three years we will be able to develop personalised disease models which will be useful in research and drug screening," he told PTI.

The strong neurological impact of GNB1 mutations indicates that Gβ1 is involved in specific aspects of neuronal signaling. A recent proteomic study identified strong link between human epilepsies and Gβ1 protein levels in different brain regions.

Developmental issues Nathan Dascal, Professor, Tel Aviv University, explained that as the developmental issues start at the fetal stage, gene therapy is the most plausible option to alleviate the effects of the mutation. However, the development of this complicated procedure will take many years and great investment of funds.

"On the other hand, epilepsy can be treated using specific drugs to increase the patient's quality of life. To treat epilepsy, specific targets have to be identified. Most epilepsies are caused due to altered ion channel function. Ion channels are proteins that underlie the electrical activity of neurons and heart cells.

"It is also possible that a combination of already existing drugs helps in a customised treatment line for the rare disease. Like in case of Covid, no new drug was found but already available drugs became part of treatment protocol," he said.

The research was supported by Indo-Israel Binational grant offered by Israel Science Foundation (ISF) and India's University Grants Commission (UGC). Professor Dascal pointed out that whole genome sequencing, the elucidation of the full genetic analysis of the baby, can be very helpful in early diagnosis of the disease.

"We have found that a potassium channel called G-protein gated Inwardly Rectifying K+ (GIRK) channel (present in brain, heart and endocrine glands) function is affected significantly. Then we used specific drugs to correct the channel activity.

"As I80T mutation is the most prevalent variant in GNB1 encephalopathy patients, we are currently focusing prioritising on this mutation alone. We have a mouse models with I80T, K78R and D76G mutations. We have generated induced pluripotent stem cells (iPSCs) from the patient's fibroblasts with I80T mutation.

"We will differentiate patient-derived iPSCs to differentiate into neurons. Our study paves the way for testing in animal models or patient-derived neurons to develop concrete therapeutic approaches," he said. (Source:Business Line)

Healthcare Industry: After Being A Pharma Hub, India Is Now A Medical Tourism Destination:

After becoming the pharmacy of the world, India has emerged as a medical tourism hub on the global healthcare map, said Union Finance Minister Nirmala Sitharaman. Addressing the 35 th convocation ceremony of Tamil Nadu Dr. MGR Medical University on Saturday, she said India's medical tourism industry is estimated at $9 billion, which makes India the 10 th biggest global medical tourism hub.

"It is good medical institutions that train and mould good doctors. About 2 million patients from around 76 countries visit India for medical, wellness and IVF treatments, generating $6 billion for the industry. This is expected to increase to $13 billion by 2026" she added. Sitharaman said India is already recognised as the pharmacy of the world as the Indian pharma industry is sought after by most countries mainly due to its expertise in producing medicines in accordance with global standards and for its cost competitiveness.

Exponential growth Now, India exports drugs and pharmaceuticals worth $2 billion. The Indian pharma industry witnessed an exponential growth of 103 per cent during 2014-2022 period. The industry's size has grown from $11.6 billion to $24.6 billion.

"India supplies about 50 per cent of the requirement of all of Africa's generic medicines. About 40 per cent of America's generic medicine requirement is met by the Indian pharma sector. Also, about 25 per cent of all medicines in the UK is supplied by our industry," she stated.

Supplying generic drugs Sitharaman said India supplied a significant portion of the world's generic drugs. About 60 per cent of all global vaccine demand is met by India. Also, 70 per cent of WHO's (World Health Organisation) vaccine requirement is supplied by India for the organisation's essential immunization programmes across the world.

Referring to the recent spike in Covid infections in some parts of the world, she stated that State and Central Institutions worked together to fight against the Omicron variant of Covid. Tamil Nadu Governor RN Ravi and State Health Minister Ma Subramanian, among others, were present at the convocation ceremony. (Source: Business Line)

India's first. Airtel, Apollo Hospitals Conduct 5G-Based Tech Trial For Colon Cancer Detection

Telecom operator Bharti Airtel and Apollo Hospitals have carried out India's first 5G driven, artificial intelligence guided trial to detect colon cancer, the telecom firm said on Thursday.

The trial was conducted using AI on Airtel's 5G technology with ultra-low latency and high processing capabilities, as a result of which the colon cancer was detected much faster and with greater accuracy, it added.

"At Airtel, we are geared up to lead this transformation and have demonstrated this by conducting India's first colonoscopy trials. Healthcare is one of the most promising use cases for 5G, and we are delighted to collaborate with Apollo Hospitals, AWS, HealthNet Global and Avesha," Airtel Business CEO and Director Ajay Chitkara said.

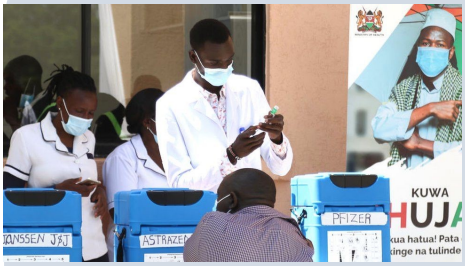
HealthNet Global, AWS and Avesha were the other three companies that collaborated on this trial. The data was processed by Avesha edge inferencing applications on AWS platforms on real time basis, resulting in faster analysis. 21,000 5G base stations have been deployed by operators: Ministry of Communications

"AI assisted Colonoscopy Polyp Detection trial will help doctors to improve quality of patient care, improve accuracy of detection rates by capturing information correctly and reducing errors. 5G, Edge computing and Artificial Intelligence can significantly improve patient outcomes by assisting in proper and timely diagnosis.

The statement added. As per current protocol, colon cancer is detected through a colonoscopy procedure which is manual and requires great attention and time from medical practitioners for accurate detection. The standard procedure takes around 30 to 40 minutes.

"By augmenting doctor's ability to detect, AI has been proved to improve physician's accuracy. Early detection and removal of polyps can easily avoid them becoming cancerous. Our patient centric approach keeps us on an outlook for technologies which can make outcomes better," Apollo Hospitals Group, Joint Managing Director, Sangita Reddy said.

India Seizes Opportunities In African Healthcare



In 2007 he left Kenya for Bangalore to pursue his goal of becoming a neurologist. After 18 months in India, he returned to Kenya and now works at the Aga Khan University Hospital in Nairobi. "Most of us train in India, as Africa is not a developed continent. We have a very poor economy with no medical infrastructure in place nor specialised training," he says.

"I would have never been able to get a specialised degree if I would have not opted for India," Mr Mativo says. India is keen to strengthen such ties with Africa. It has identified the healthcare sector as one area where trade between the continents can flourish. So young African doctors are encouraged to finish their training in India, meanwhile Indian healthcare firms are expanding all over Africa.

Dr Mativo had to travel from Kenya to Banaglore to finish his medical training "The African market is a natural fit for Indian pharmaceutical companies, as India is the largest provider of generic medicine in the world," says Nisht Dubey. Generic drugs made in India can sell at a quarter of the price of a branded equivalent, which makes them a popular choice in less well-off parts of the world. "There is a big gap between demand and supply of medicines in Africa, with a huge disparity among rich and poor," says Mr Dubey.

Spurred by a shortage of medicine and hospital equipment in Kenya during the Covid crisis, Mr Dubey set-up Goodstrain Pharma in 2020. It imports medicine and medical products from all over the world into Kenya. Goodstrain's warehouse and corporate offices are in Nairobi, but Mr Dubey wants it to expand across East Africa. "Africa is the only pharmaceutical market where genuinely high growth is still achievable," says Mr Dubey, who is originally from Uttar Pradesh in northern India.

But getting a firm going in Kenya has not been easy. Goodstrain's very first shipment to Kenya was held up at customs for weeks - a major setback for the young firm. Mr Dubey says they were not ready for the web of regulations covering imports. Now a third party, which specialises in clearing imports, handles that for them.

In Kenya there was an acute shortage of medical supplies during the pandemic Africure Pharmaceuticals, has gone one step further than Goodstrain, by manufacturing pharmaceuticals in Africa. The company, only founded in 2017, already has nine manufacturing facilities in Africa, employing 300 people across Cameroon, Namibia, Botswana and Côte d'Ivoire, with plans to build plants in Ethiopia and Zimbabwe. Africure's factories make medications to treat pain, fever, inflammation, malaria, diabetes andhypertension, as well as a wide range of antibiotics.

"Africa over the years has been dependent on imports of medication from Europe, India, and China, which has resulted in the draining of precious foreign exchange, non-creation of job opportunities, and suffering the vagaries of supply and demand," says Sinhue Noronha, founder and chief executive of Africure Pharmaceuticals. Originally from Mumbai, Mr Noronha, hopes his firm will help tackle some of the problems in African healthcare.

"Our primary objective is to solve the persistent issues such as affordability, availability, low quality, technological dependence, and reliance on imports. "All of our plants and distribution setups are engaged primarily to provide an uninterrupted supply of essential medicines." Goodstrain Pharma imports medicine and medical products into Kenya Mr Noronha says that Indian firms have a head start over rivals from elsewhere in the world. "Indian manufacturers and importers are able to understand the African market because of our large diaspora presence in Africa."

Even with those connections, Mr Noronha, has found building a business in Africa a bumpy experience. "The biggest challenge is political instability. I may get a permission today to set up a manufacturing unit, and tomorrow the government or the health minister may resign. One has to be ready for any kind of eventuality," he says. He also says that personal safety is a consideration. "Security is another big concern. murder and kidnapping are common in Africa. We Indians have to be very careful," he says. Broadly, Indian healthcare firms have a good reputation in Africa, but that hard won image has recently suffered significant damage.

Three things to know about cough syrup and deaths in The Gambia **Police in The Gambia are investigating** the deaths of 66 children, which have been linked to four brands of imported Indian cough syrup. In October, the World Health Organization (WHO) issued a global alert over the cough syrups - warning they could be linked to acute kidney injuries and the children's deaths in July, August and September. "The Gambia incident is an aberration and we should feel bad about it," says Udaya Bhaskar, director general of Pharmexcil, which promotes the export of Indian pharmaceuticals. "This incident will certainly be a dent in our exports and the image of Indian pharma," he says. But he thinks the reputational damage will be short-lived.

"The important factor is that Africa is very dependent on other countries and India produces very good quality medicine, so the Gambia impact will be short-term." Back in Nairobi, Dr Mativo says the problem is the lack of testing facilities in Africa. "The Gambia incident is sad. The biggest problem is we are not financially strong, nor do we have facilities which can check the standards of medicine supplied to us." He would like to see more products produced locally.

"In Africa most of the population cannot afford branded medicine... what we need is training and setting up manufacturing units in Africa." (Source: BBC)