



a weekly publication from ICMR-NIRT Library

2022 | Vol.5 | Issue No.8

news **bulletin** *Library*



NEWS BULLETIN

21 Feb 2022 | Vol.5 | #8

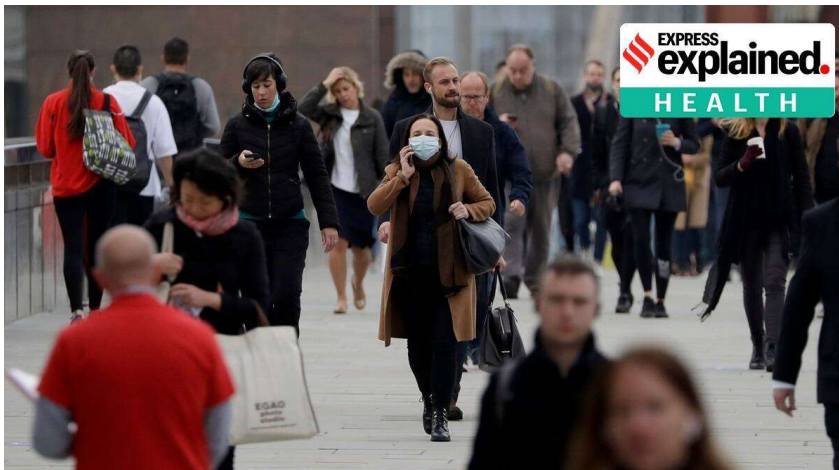
A weekly publication from NIRT Library

 **The Indian EXPRESS**

Explained: What is endemic stage of a pandemic, and how far is India from getting there?

The UK has eased restrictions while new measures in California approach Covid-19 as being endemic. What does endemic stage mean, how far is India from getting there, and what changes in control measures?

Written by [Anonna Dutt](#) | New Delhi |
Updated: February 22, 2022 12:10:16 pm



Some experts agree that precautions such as masking should remain in place. (AP)

People with [Covid-19](#) will no longer legally need to isolate in United Kingdom and the tests are likely to be scaled back as part of a plan to live with Covid-19. California too has announced a shift to an endemic approach to Covid-19 that will focus on watching out for new variants and reacting

 **The Indian EXPRESS**

Will adults need a fourth dose of Covid vaccine? It's too soon to know

Dr. Anthony Fauci, chief medical adviser to the White House, said the vaccines are still a firm bulwark against severe illness, despite data from the Centers for Disease Control and Prevention showing that booster shots lose some of their potency after four to five months.



A healthcare worker prepares a syringe with the Moderna Covid-19 vaccine at in Manhattan in New York City. (Reuters Photo: Mike Segar)

Written by Sharon LaFraniere

Although new federal data suggests that the effectiveness of booster shots wanes after about four months, the Biden administration is not...

Continued in page No.8

quickly to outbreaks rather than issuing mandates for masking indoors.

A look at what an endemic stage of Covid-19 will look like, how the world will reach there, and what it will mean for control measures such as masking, [social distancing](#) in India and vaccination globally:

What does endemic stage mean, and are we there yet?

An infection becomes endemic when the rates become static in a given geographical location, meaning that the pathogen causing the disease — SARS-CoV-2 in this case — is likely to remain in circulation without causing large outbreaks as witnessed over the last two years.

Although the number of infections in India is consistently declining, experts say they cannot give a deadline on when the disease will become endemic. It will depend on the number of susceptible people in the population, vaccination rates, and emergence of new variants that are able to evade the immune response.

“Endemic means that the virus will continue circulating in the population and there will be periodic ups and downs when the conditions are favourable to the virus and less favourable to humans. Take, for example, flu which goes up in the winters and when the season is changing because of lower immunity in people or dengue which goes up after monsoons because of the availability of vectors. Covid-19 also may become seasonal and cause disease in the vulnerable,” said Dr Pramod Garg, director, Translational Health Science and Technology Institute (THSTI)-Faridabad.

An important determinant for whether we can “technically” say that the disease is endemic would be a representative sero-survey (population-level survey of antibodies against SARS-CoV-2) and laboratory susceptibility

studies, said Dr Amit Singh, associate professor, Centre for Infectious Disease at the Indian Institute of Science-Bangalore.

“We can say that the disease is endemic only after we see that a majority of the people have immunity against the infection either through previous exposure or vaccination. If a representative sero-survey shows over 90% positivity, we can assume that. But we also need to see whether these antibodies can effectively protect against the current variants and a neutralisation study would tell us that,” Dr Singh said.

Does it mean we are safer?

A disease becoming endemic does not mean it is harmless. In an editorial in Nature, Oxford University professor on viral evolution Dr Aris Katzourakis argued, “A disease can be endemic and both widespread and deadly. Malaria killed more than 600,000 people in 2020. Ten million fell ill with tuberculosis that same year and 1.5 million died. Endemic certainly does not mean that evolution has somehow tamed a pathogen so that life simply returns to normal.”

He added, “Nor does it suggest guaranteed stability: there can still be disruptive waves from endemic infections, as seen with the US measles outbreak in 2019.” Researchers are also wary of new variants emerging. Another Nature article on the virus's future course said, “The sky-high circulation of the [Delta variant](#) and the rise of [Omicron](#) — aided by inequitable vaccine roll-outs to lower-income countries and minimal control measures in some wealthy countries such as the United States and the United Kingdom — offer fertile ground for SARS-CoV-2 to take additional surprising evolutionary leaps.”

How will control measures change if the disease becomes endemic?

Although experts have pushed for easing of restrictions, they say that there is a need to

maintain high levels of testing and good genomic surveillance.

“We need to maintain high levels of testing and ensure that the cases get reported. Testing is quite less in smaller cities and villages and with home testing becoming available even in bigger cities like Delhi, people are not reporting if they test positive. Testing can tell us whether infections are going up or down,” said Dr Singh. He also insisted on good genomic surveillance.

Talking about genomic surveillance when the disease becomes endemic, Dr Rakesh Mishra, former director of Centre For Cellular And Molecular Biology-Hyderabad which is one of the ten central labs of India's genomic surveillance consortium, said, “It is not always about the numbers. During the peak of a wave, a lot of sequencing makes no sense. It is more important in a period of lull. That is the time to not relax.”

The best way to find new variants, he said, was to “One, conduct a general survey; sequence probably 1% or 2% of the positive cases. Two, wherever there are more cases from an area, we should sequence immediately. Third, we need to keep a very close eye on hospitalised cases. The sample of any person admitted to the hospital with positive Covid-19 should be certainly sequenced. If they needed to come to the hospital with severe symptoms, it may be because of a new variant.”

Should we continue to mask up?

“There is no real benefit in declaring that the disease is now endemic,” Dr Mishra said. “What is the hurry to remove restrictions? If we live with the new normal, we will be protecting the economy as well. We don't know when a new variant might emerge. If we look at omicron, it did not cause severe disease in India but in the US it led to high rates of hospitalisations and deaths. US is a smaller country, it is a richer country. We cannot afford to do what they did.

We have all suffered, let us not fall into the ditch of a new variant,” he said.

Other experts agreed that the precautions should remain in place.

Another concern with officially declaring Covid-19 endemic would be fewer resources being made available for measures such as vaccination. “There is a vaccine inequity; not all countries are vaccinated. If the disease is declared endemic, then the 10% vaccination rate in some countries will remain 10%’ nobody will take care of that,” said Dr Singh.

“The more a virus replicates, the greater the chance that problematic variants will arise, most probably where spread is highest. The Alpha variant was first identified in the United Kingdom, Delta was first found in India and Omicron in southern Africa — all places where spread was rampant,” Dr Katzourakis wrote in the Nature editorial.

THE HINDU

Epilepsy patients need not fear taking COVID-19 vaccine, say experts

PUDUCHERRY FEBRUARY 17, 2022 21:27 ISI

International Epilepsy Day observed in Jipmer

It is perfectly safe for epilepsy patients to take the COVID-19 vaccination, experts told a recent awareness meeting for patients and caregivers as part of International Epilepsy Day observance.

The session was hosted by the Department of Neurology at the Jawaharlal Institute of Postgraduate Medical Education & Research

(Jipmer) with this year's theme "Show Some Love", chosen by a joint initiative of International League Against Epilepsy (ILAE) and International Bureau for Epilepsy (IBE), to raise awareness about epilepsy and to highlight the problems faced by people with epilepsy, their families and caregivers.



The Neurology Department at Jipmer hosting an awareness programme on epilepsy for patients and caregivers. | Photo Credit: SPECIAL ARRANGEMENT

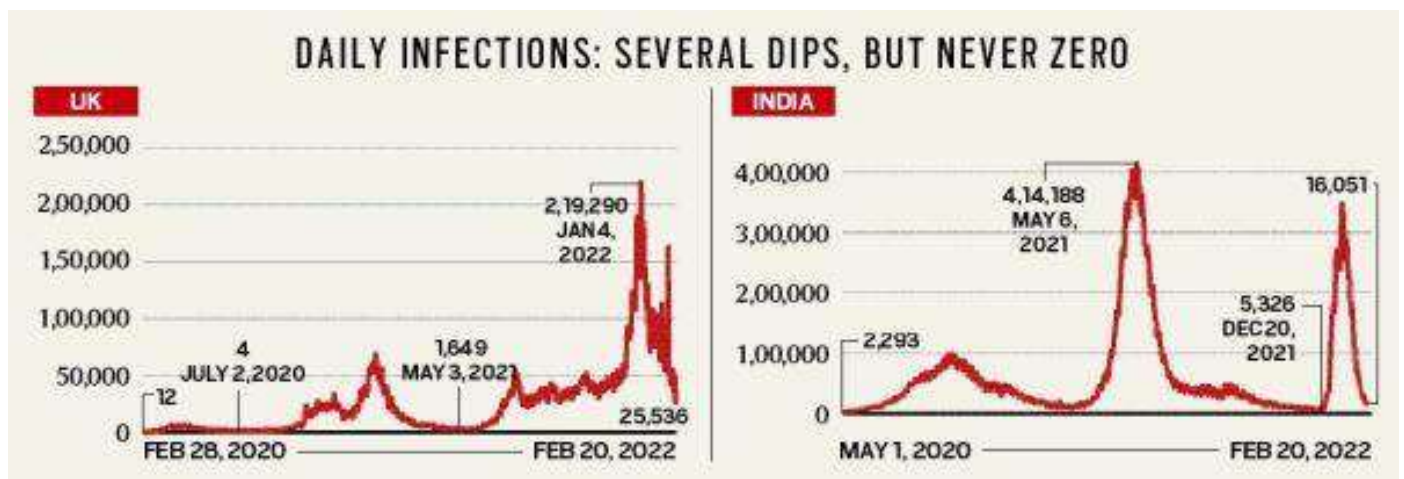
Specialists told a group of over 100 patients and caregivers that one of the common doubts was over the safety of the COVID-19 vaccination. It was stressed that everyone can get the jab without any fear of aggravating the seizures.

More than 70% of people with epilepsy in low-income countries do not get proper treatment. The cause is unknown in 6 out of 10 epilepsy patients, in the remaining, it may be related to brain damage sustained from birth injury, road traffic accidents, and infections such as neurocysticercosis and tuberculosis, stroke or brain tumours.

While 70% of cases can be treated successfully without relapses using drugs, about half the remaining 30% of patients, may have abnormalities, which can be corrected by surgery. Jipmer has been offering facilities for such surgeries for the last few years.

Doctors reiterated that epilepsy was a chronic non-communicable disorder of the brain characterised by recurrent seizures that affect people of all age groups. Contrary to popular belief, epilepsy is neither contagious nor associated with witchcraft, and those with epilepsy are not mentally ill.

Although seizures usually present as involuntary jerks with loss of consciousness, fall and passage of urine and/or stool, they can also take the form of a sudden loss of awareness or responsiveness and irrelevant speech. Seizures result from



According to specialists, epilepsy was one of the most common neurological disorders affecting more than 65 million people worldwide, which is about 1 in 100 persons.

abnormal and excessive firing of groups of brain cells. When seizures recur unprovoked, it is known as epilepsy.

A detailed list of Do's s and Don'ts was also shared with the group. The tips ranged from cushioning the head against injury during convulsions, not putting anything in their mouths including hands, restrict or restrain their movements, and the imperative of drug compliance, as even skipping a single dose may precipitate seizures.

The importance of following COVID-19 safety protocols was also stressed by doctors. During the pandemic, Jipmer made arrangements to overcome the difficulties faced both by persons with epilepsy and doctors for offering essential services.

This included logistics related to the teleconsultation services, appointments, epilepsy services, including the supply of drugs available in the nearby districts of Tamil Nadu, and coordination with District Medical Officers of these districts during the early pandemic so that there was no break in the management.



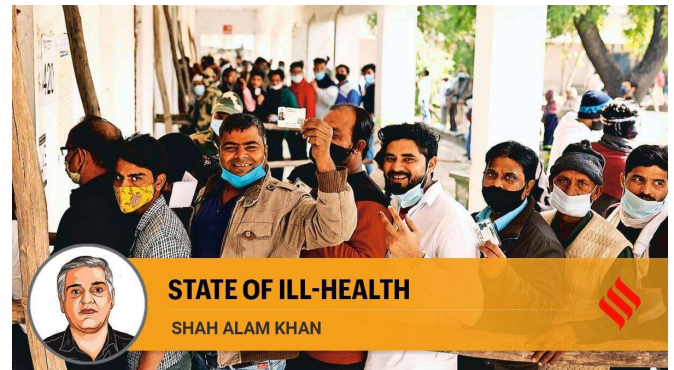
UP is staring at a health crisis

Shah Alam Khan writes: There appears to be a political determination to induce a collective amnesia about death and devastation, particularly following the brutal second wave of Covid-19.

Written by [Shah Alam Khan](#) |

Updated: February 12, 2022 8:53:29 am

Through the next few weeks, the country's most populous state will vote for a new government. Unfortunately, besides being the most populous, Uttar Pradesh (UP) also happens to be in the company of the most "diseased states" in the country. In the recently published results of the



People line up to vote in the first phase of UP assembly election, in Ghaziabad. (Praveen Khanna)

National Family Health Survey-5 (NFHS-5), the state has done even worse than conflict zones like Jammu and Kashmir. It, therefore, appears that the poor showing of the state in the second wave of [Covid-19](#) was not by chance, but a fallout of government neglect of healthcare. This is even more evident in the ongoing election campaign where the narrative is set by the incumbent regime and no one wants to discuss the "health of the people".

Traditionally, health and education have never been points of discussion in electoral campaigns in India, but with the ongoing Covid -19 pandemic, it is imperative that there is clear accountability for death and disease. In the wake of the devastation unleashed by Covid-19, even the most far-right regimes (like in Brazil and the Philippines) have begun to talk about the health of their people.

The NFHS-5 has revealed some staggering facts about India's perpetual health crisis. This, despite India being a signatory to the Millennium Development Goals (MDG) of the United Nations General Assembly in 2000. An evaluation of the NFHS-5 results from UP reveals how deep the muck is and how urgent the need to fix accountability. According to the NFHS-5, the infant mortality rate (IMR) of UP is 50.4 per 1,000 live births. This is poorer than even the most violent conflict zones in the world. The IMR for Syria is 16 per 1,000 live births and for Iraq, it is 20 per 1,000 live births. The under-five mortality rate

for UP is even more dismal at 59.8 per 1,000 live births. This is in contrast to the under-five mortality of 9.8 per 1,000 live births for Jammu and Kashmir in NFHS-5 (the figure is 16 per 1,000 live births for Syria). Both IMR and under-five mortality rates are among the most important and sensitive indicators of the health of a population. For UP, these figures are nowhere near the Sustainable Development Goals 3 target for 2030, which is to ensure healthy lives and promote well-being for people of all ages.

Even as we cry a river on UP's poor health indicators in the NFHS-5, other tragic maladies directly affect the well-being and health of the people of the state. The NFHS-5 data shows that 39.7 per cent of children under the age of 5 years are stunted. A whopping 66.4 per cent of children between the ages of 6-59 months are anaemic. This figure for anaemia has worsened from 63.4 per cent in NFHS-4 (2015-16). The 2021 Global Nutrition Report reveals that the incidence of stunting in children aged less than 5 years in South Sudan, which has the worst malnutrition in all of Africa, is 31.3 per cent. As per the NFHS-5, 50.4 per cent of women in the reproductive age group (15-49 years) in UP have anaemia. In 2019, South Sudan had 35.6 per cent anaemic women within the reproductive age group. Uttar Pradesh, thus, has more stunted children and more anaemic women than probably any region on the planet with such a significant cohort of people. Anaemia and malnutrition are the harbingers of chronic disease and death.

No wonder, among all states, UP has the largest number of tuberculosis cases and is responsible for over 20 per cent of the total TB cases notified in the country. In 2020, just over 4 lakh cases of TB were detected in UP. This was in contrast to the 1.23 lakh TB cases notified in the neighbouring state of Bihar during the same year. Bihar was known to have some of the worst TB statistics in the decades gone by. More worryingly, the incidence of multi-drug-resistant TB (MDR-TB) is

second highest in UP with 4.53 per cent newly diagnosed cases of TB being MDR. The future health implications of this high percentage of drug-resistant TB is anyone's guess.

Epidemics also make frequent appearances in UP. The 2017 deaths of children in a government hospital in Gorakhpur due to Acute Encephalitis Syndrome (AES) is a case to ponder as it symbolises the poisonous mix of susceptibility of the malnourished and brutal neglect on part of the state. Epidemics of AES are not uncommon in UP. The number of child deaths in previous years due to AES was 5,850 in 2014, 6,917 in 2015 and 6,121 in 2016. Epidemics of dengue and malaria are also a common occurrence. In November 2021, the number of dengue cases in Uttar Pradesh had crossed the 23,000-mark for the year 2021, making it the worst outbreak situation in the state in several years. This was the highest number of dengue cases reported in UP since 2016. I refrain from mentioning the death and devastation seen in the wake of the second wave of Covid-19 in the state.

As mentioned earlier, in India, health doesn't traditionally figure in the imagination of the political class. The people are wrongly made to believe that health is their own responsibility. Following the pandemic, health discussions have begun to take centre stage in this country. But it appears that political determination is to induce a collective amnesia about death and devastation, particularly following the brutal second wave of Covid-19. Memories of medical neglect and death fix accountability, and accountability affects electoral prospects. As the election campaigning gains pace in UP, we are hearing more and more about temples, mosques, "love jihad" and hijabs. The health crisis silently grows bigger as we are distracted from asking questions that matter. The voters of UP should realise that somewhere in the vast hinterlands of the state of Ram, as the irresponsible finish speaking about "love jihad", hijab or the mandir, a few hundred more men,

women and children would have taken their last breaths due to malnutrition, AES, TB or anaemia.

THE HINDU

TB survey in each district: Veena George

THIRUVANANTHAPURAM FEBRUARY 19, 2022 20:15 IST

As part of sub-national certification programme

Health Minister Veena George has said the progress of tuberculosis (TB) eradication activities will be assessed through an annual survey undertaken in each district.

In a statement here on Saturday, Ms. George said the survey is being conducted as part of the sub-national certification programme undertaken by the Ministry of Health and Family Welfare. The progress achieved by the State in TB eradication will be reviewed jointly by the Central TB Division, World Health Organization representatives, ICMR – National Institute for Research in Tuberculosis (NIRT) and the Indian Association for Preventive and Social Medicine.

Kerala was the lone State chosen for the Union government's recognition for its TB eradication programme last year. Each district will go in for the certification programme this year. The survey is being conducted from February 14 to mid-March across the State with the assistance of ASHA workers, volunteers and the district TB officers at the field level.

Each district has deployed 15 teams each comprising two members for the programme.

THE HINDU

Puducherry CM releases TB Elimination Document

PUDUCHERRY FEBRUARY 09, 2022 22:09 IST

Rangasamy also launches preventive treatment drive

Chief Minister N. Rangasamy on Wednesday released a TB Elimination Document and launched a preventive treatment drive to achieve the goal of eliminating the disease by 2025.

The Puducherry arm of the National TB Elimination Programme (NTEP) has formulated strategies in line with the National Strategic Plan 2017-25, prepared by the Ministry of Health and Family Welfare, to realise the mission objective ahead of the global goal of eliminating TB by 2030.

The TB elimination strategies, formulated with the help of various stakeholders and approved by the Central TB Division, Government of India, include measures such as surveillance of close contacts of infectious cases and screening for co-morbidities, including HIV, and their management.

The document also envisages cross-border collaboration with Tamil Nadu as there is a high influx of patients from outside Puducherry, and addressing major TB vulnerabilities, including tobacco, malnutrition and indoor air pollution.

India has highest burden

According to a press note, India has the highest burden of TB infection (TBI) globally, with 5%-10% of those infected developing active TB disease over the course of their lives, usually within the first two years after initial infection.

The appropriate use of TB Preventive Treatment (TPT) will play a crucial role in efforts to eliminate tuberculosis in India. The close contacts of infectious cases will be brought under TPT to avoid the spread of the disease to the close contacts of TB patients, the press note said.

Continued from page no.1

Will adults need a fourth dose of Covid vaccine? It's too soon to know

....planning to recommend fourth doses of the [coronavirus](#) vaccine anytime soon.

"We simply don't have enough data to know that it's a good thing to do," Dr. Peter Marks, who heads the division of the Food and Drug Administration that regulates vaccines, said this week.

Dr. Anthony Fauci, chief medical adviser to the White House, said the vaccines are still a firm bulwark against severe illness, despite data from the Centers for Disease Control and Prevention showing that booster shots lose some of their potency after four to five months.

The CDC's research, released last Friday, analyzed hospitalizations and visits to emergency rooms and urgent care clinics in 10 states by people who had had booster shots of either Moderna's or Pfizer's vaccine. The study showed the level of protection against hospitalization fell from 91% in the two months after a third shot to 78% after four to five months. Effectiveness against visits to emergency rooms or urgent care clinics declined from 87% to 66%.

The data came with major caveats: Researchers did not examine variations by age group, underlying medical conditions or the presence of immune deficiencies. Still, they said, the

findings underscored the possible importance of a fourth shot.

"Should I get a fourth shot?' That's what a lot of people are asking me," Fauci said. "The answer is if you look at where we are now, it looks like it's good protection. Seventy-eight percent is good."

The administration's vaccine strategy has been under constant review since President Joe Biden took office. What comes next, Fauci said, will depend on whether protection from boosters holds steady or continues to drop after four to five months.

Marks said it may turn out that the best time for an additional shot is this fall, when the spread of the coronavirus is expected to pick up again. "Barring any surprises from new variants, maybe the best thing is to think about our booster strategy in conjunction with the influenza vaccine next fall and get as many people as possible boosted then," he said.



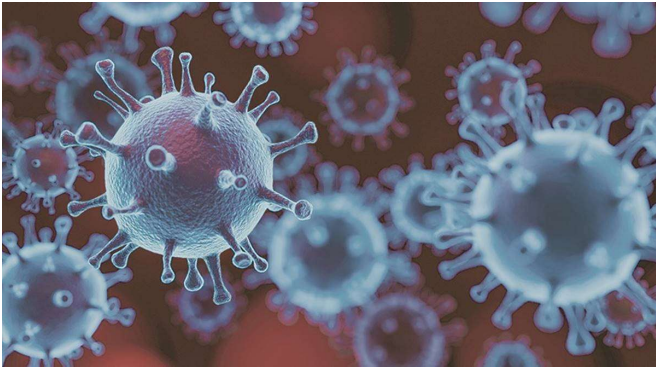
Omicron sub-variant BA.2 appears capable of causing severe illness, says new study

Contrary to the findings of the study, the World Health Organisation on Thursday noted that while the BA.2 sub-variant is more transmissible than BA.1, there is no difference in severity.

By: [Express Web Desk](#) | Chennai |
Updated: February 18, 2022 9:59:46 pm

A recent lab study suggested that the BA.2 subvariant of the [Omicron coronavirus](#) variant may possess certain features that not only make

it more transmissible, but also more capable of causing severe disease.



The study found that similar to BA.1, BA.2 subvariant of Omicron appears to largely escape the immunity induced by COVID-19 vaccines.

This comes at a time when several countries are lifting measures put in place to contain the Omicron variant as the recent wave of infections driven by it appears to be waning.

The study, that is yet to be peer reviewed, was recently posted on the preprint repository BioRxiv.

Contrary to the findings of the study, the World Health Organisation on Thursday noted that while the BA.2 sub-variant is more transmissible than BA.1, there is no difference in severity. "Among all sub-variants, BA.2 is more transmissible than BA.1. However, there is no difference in terms of severity," Maria Van Kerkhova, [COVID-19](#) Technical Lead at WHO said in a video.

The BA.2 sub-variant of Omicron has spread rapidly in countries including Denmark, Philippines, South Africa and the United Kingdom in the past few weeks. While the sub-variant follows the initial spread of the BA.1 sub-variant of Omicron, it has now started outcompeting BA.1, suggesting more transmissibility, according to researchers.

The study, conducted by a team of researchers at the University of Tokyo, found that similar to

BA.1, BA.2 subvariant of Omicron appears to largely escape the immunity induced by COVID-19 vaccines.

"Neutralisation experiments show that the vaccine-induced humoral immunity fails to function against BA.2 like BA.1," the authors of the study said.

The study also said that even though BA.2 is considered an Omicron variant, its genomic sequence is much different from BA.1, suggesting that the virological characteristics of BA.2 differ from that of BA.1

According to WHO, the BA.2 sub-variant now accounts for roughly one in five new Omicron cases recorded across the world.



Covid patients may have increased risk of developing mental health problems

By: [New York Times](#) |
February 17, 2022 10:30:02 pm



Time to think mental health (Photo: Getty Images/Thinkstock)

By Pam Belluck

Social isolation, economic stress, loss of loved ones and other struggles during the pandemic have contributed to rising mental health issues like anxiety and depression.

But can having [COVID-19](#) increase the risk of developing [mental health problems](#)? A large new study suggests it can.

The study, published Wednesday in the journal *The BMJ*, analyzed records of nearly 154,000 COVID patients in the Veterans Health Administration system and compared their experience in the year after they recovered from their initial infection with that of a similar group of people who did not contract the virus.

The study included only patients who had no mental health diagnoses or treatment for at least two years before becoming infected with the [coronavirus](#), allowing researchers to focus on psychiatric diagnoses and treatment that occurred after coronavirus infection.

People who had COVID were 39% more likely to be diagnosed with depression and 35% more likely to be diagnosed with anxiety over the months following infection than people without COVID during the same period, the study found. COVID patients were 38% more likely to be diagnosed with stress and adjustment disorders and 41% more likely to be diagnosed with sleep disorders than uninfected people.

"There appears to be a clear excess of mental health diagnoses in the months after COVID," said Paul Harrison, a professor of psychiatry at the University of Oxford, who was not involved in the study. He said the results echoed the emerging picture from other research, including a 2021 study on which he was an author, and "it strengthens the case that there is something about COVID that is leaving people at greater risk of common mental health conditions."

After having COVID, people were 55% more likely to be taking prescribed antidepressants and 65% more likely to be taking prescribed anti-anxiety medications than contemporaries without COVID, the study found.

Overall, more than 18% of the COVID patients received a diagnosis of or prescription for a neuropsychiatric issue in the following year, compared with less than 12% of the non-COVID group. COVID patients were 60% more likely to fall into those categories than people who didn't have COVID, the study found.

The study found that patients hospitalized for COVID were more likely to be diagnosed with mental health issues than those with less serious coronavirus infections. But people with mild [initial infections](#) were still at greater risk than people without COVID.

"Some people always argue that 'Oh, well, maybe people are depressed because they needed to go to the hospital and they spent like a week in the ICU,'" said the senior author of the study, Dr. Ziyad Al-Aly, chief of research and development at the VA St. Louis Health Care System and a clinical public health researcher at Washington University in St. Louis. "In people who weren't hospitalized for COVID-19, the risk was lower but certainly significant. And most people don't need to be hospitalized, so that is really the group that's representative of most people with COVID-19."

The team also compared mental health diagnoses for people hospitalized for COVID with those hospitalized for any other reason. "Whether people were hospitalized for heart attacks or chemotherapy or whatever other conditions, the COVID-19 group exhibited a higher risk," Al-Aly said.

The study involved electronic medical records of 153,848 adults who tested positive for the coronavirus between March 1, 2020, and Jan. 15, 2021, and survived for at least 30 days. Because

it was early in the pandemic, very few were vaccinated before infection. The patients were followed until Nov. 30, 2021. Al-Aly said his team was planning to analyze whether subsequent vaccination modified people's mental health symptoms, as well as other post-COVID medical issues the group has studied.

The COVID patients were compared with more than 5.6 million patients in the Veterans system who did not test positive for the coronavirus and more than 5.8 million patients from before the pandemic, in the period spanning March 2018 through January 2019. To try to gauge the mental health effect of COVID-19 against that of another virus, the patients were also compared with about 72,000 patients who had the flu during the 2 1/2 years before the pandemic. (Al-Aly said there were too few flu cases during the pandemic to provide a contemporaneous comparison.)

The researchers tried to minimize differences between groups by adjusting for many demographic characteristics, pre-COVID health conditions, residence in nursing homes and other variables.

In the year after their infection, the COVID patients had higher rates of mental health diagnoses than the other groups.

"It's not really surprising to me because we've been seeing this," said Dr. Maura Boldrini, an associate professor of psychiatry at NewYork-Presbyterian Columbia University Medical Center. "It's striking to me how many times we've seen people with these new symptoms with no previous psychiatric history."

Most veterans in the study were men, three-quarters were white and their average age was 63, so the findings may not apply to all Americans. Still, the study included over 1.3 million women and 2.1 million Black patients, and Al-Aly said "we found evidence of increased risk regardless of age, race or gender."

There are several possible reasons for the increase in mental health diagnoses, Al-Aly and outside experts said. Boldrini said she believed the symptoms were most likely influenced by both biological factors and the [psychological stresses](#) associated with having an illness.

"There's no one analysis that tells you the whole story," Al-Aly said. "Maybe all of us or most of us experienced some sort of an emotional distress or mental health stress or some sleep problem," he added. "But people with COVID did worse."

This article originally appeared in The New York Times.



Moderna eyes COVID booster by August, not clear yet if Omicron-specific needed

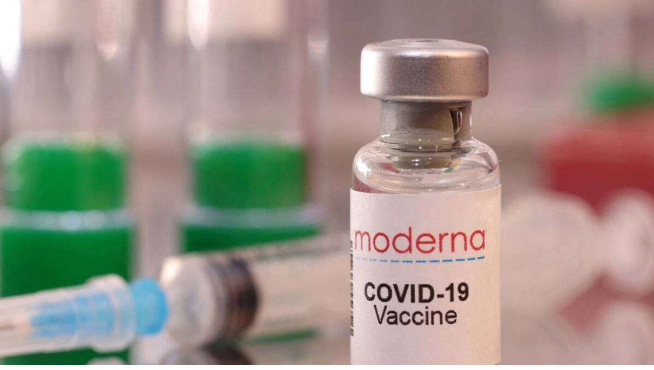
Last month, Moderna began clinical trials for a booster dose specifically designed to target Omicron but initial results from studies in monkeys show the shot may not offer stronger protection than a new dose of the existing vaccine.

By: [Reuters](#) | Brussels |
February 17, 2022 3:29:49 pm

An [Omicron](#)-specific booster could be ready by August, the CEO of US biotech firm Moderna (MRNA.O) told *Reuters*, but the firm is still gathering clinical data to determine whether that vaccine would offer better protection than a new dose of the existing jab.

Last month, Moderna began clinical trials for a booster dose specifically designed to target Omicron but initial results from studies in monkeys show the Omicron-specific shot may not offer

stronger protection than a new dose of the existing vaccine.



A vial labelled "Moderna COVID-19 Vaccine" is seen in this illustration taken January 16, 2022. (Reuters)

Moderna chief executive Stephane Bancel said in an interview the company aimed to have a booster ready by August 2022, before next autumn when he said more vulnerable people may need it.

Moderna's vaccines use mRNA technology to provoke an immune response, similar to the shot developed by Pfizer/BioNTech.

"We believe a booster will be needed. I don't know yet if it is going to be the existing vaccine, Omicron-only, or bivalent: Omicron and existing vaccine, two mRNA in one dose."

He said a decision would be made in the coming months when clinical data becomes available.

Bancel also confirmed that under the best-case scenario Moderna would have ready by August 2023 a so-called pan-vaccine which would protect simultaneously against [COVID-19](#), flu and other respiratory diseases.

He added that pricing for this vaccine under development would be "very similar" to that applied to the current vaccine.

Moderna charges different prices for different regions of the world with a range between \$15 and \$37, according to UNICEF, a United Nations

agency involved in the distribution of vaccines to poorer nations.

Boosting sales in Europe

Separately, Moderna announced plans to expand its commercial network in Europe in a bid to increase sales on the continent.

"Moderna plans to establish a commercial presence in Belgium, Denmark, Norway, the Netherlands, Poland and Sweden to support the delivery of mRNA vaccines and therapeutics locally," the company said in a statement.

These new European subsidiaries will be added to commercial offices in Italy, France, Germany, Spain, Switzerland and Britain. Moderna is also boosting its commercial presence in Asia.

In Europe, Moderna produces its vaccines through manufacturing partnerships which include Lonza (LONN.S) in Switzerland and the Netherlands, ROVI (ROVI.MC) in Spain and Recipharm in France.

The company shipped last year more than 800 million COVID-19 shots globally and has deals with EU countries for the supply of up to 460 million doses.



நோய் எதிர்ப்புத்திறனை ஏன் அதிகரிக்க வேண்டும்?

Published : 05 Feb 2022 11:54 am

[லாக்டர் பா.இரா.செந்தில்குமார்](#)

ஓமைக்ரான் வேற்றுருவால் அச்சமான சூழல் உருவாகியிருந்த நிலையில், இந்தியாவில் கரோனா பாதிப்புக்கு

உள்ளானவர்களில் பெரும்பாலோர் நோயிலிருந்து குணமடைந்திருக்கின்றார்கள். மருத்துவ அணுகுமுறை, தடுப்பூசி போன்றவற்றால் இது சாத்தியமானது என்றாலும், இவற்றைவிட முக்கியப் பங்காற்றியது நமது உடலில் காணப்படும் 'நோய் எதிர்ப்புத்திறன்'.



சாலையோரக் கடையின் விளம்பரப் பலகையில் 'இங்கே **நோய்** எதிர்ப்பாற்றாலை அதிகரிக்கும் கம்புத் தோசை கிடைக்கும்' என எழுதிவைக்கும் அளவுக்கு **நோய்** எதிர்ப்புத்திறன் குறித்த விழிப்புணர்வு ஏற்பட்டுள்ளது. இருப்பினும், **நோய்** எதிர்ப்புத்திறன் என்பது கம்புத் தோசையையும், உலகத் தரச்சான்றிதழ் பெற்ற சத்துமாவினையும் உண்பதால் மட்டுமே பெற்றுவிடக்கூடிய உடல் திறன் அல்ல. அது உடலின் பல்வேறு அமைப்புகளின் ஒருங்கிணைந்த செயல்பாடு. **நோய்** எதிர்ப்புத்திறன் பற்றிய சரியான புரிதலே, திறன் வாய்ந்த **நோய்** எதிர்ப்புத்திறனைப் பெறுவதற்கு உதவும்.

நோய் எதிர்ப்புத்திறனின் வகைகள்

நமது உடலின் **நோய்** எதிர்ப்புத்திறன் இரண்டு வகைப்படும். முதலாவது, இயல்பாக நமது உடலில் அமைந்திருக்கும் 'Innate Immunity'. ரத்தத்தில் உள்ள

வெள்ளையணுக்களும், தோல், தொண்டை, குடல், கல்லீரல், மூளை ஆகியவற்றில் உள்ள நோய்த் தடுப்புத்திறன் பெற்ற திசுக்களும் பாக்டீரியா, வைரஸ் உள்ளிட்ட நுண்ணுயிரிகளை எதிர்த்துப் போரிட்டு நோய்த் தொற்றினைத் தடுப்பது இந்த வகையில் அடங்கும்.

இரண்டாவது வகையானது, 'Acquired or Adaptive immunity' என்று அழைக்கப்படுகிறது. இதனை மேலும், Active and Passive **immunity** என இரண்டு வகையாகப் பிரிக்கின்றார்கள். நோய்த்தொற்றைத் தடுக்கும் நோக்கில் உடல் தன்னியல்பாக உற்பத்திசெய்யும் எதிரணுக்கள், டி-செல், பீட்டா செல் அல்லது தொற்றுக்கு எதிராகப் போடப்படும் தடுப்பூசிகள் 'ஆக்டிவ் இம்யூனிட்டி' என்று அழைக்கப்படுகின்றன. தாய்ப்பாலின் மூலம் குழந்தைகளுக்குக் கிடைக்கும் **நோய்** எதிர்ப்பாற்றல் அல்லது கரோனா நோய்த்தொற்றிற்கு வழங்கப்படும் 'பிளாஸ்மா தெரபி' போன்றவற்றால் கிடைக்கும் **நோய்** எதிர்ப்பாற்றல் 'Passive Immunity' என்று அழைக்கப்படுகிறது.

உணவும் **நோய்** எதிர்ப்புத்திறனும்

நம்முடைய **நோய்** எதிர்ப்புத்திறனானது உணவு முறை, மனநலம், உடற்பயிற்சி, உறக்கம் போன்ற வாழ்க்கை முறைகளால் பெருமளவு பாதிக்கப்படும். ஊட்டச்சத்துக் குறைபாடு உள்ள சமூகத்தில் பெருமளவிலான மக்கள் காசநோய், எய்ட்ஸ் உள்ளிட்ட பல்வேறு நோய்த் தொற்றுகளுக்கு ஆளாக நேரிடும். இவையல்லாது துத்தநாகம், வைட்டமின் - ஏ, சி, டி, போலிக் அமிலம், இரும்புச்சத்து போன்ற பல்வேறு நுண்ணூட்டச்சத்து குறைபாடுள்ளவர்கள் தொற்று

நோய்களால் எளிதாகப் பாதிக்கப்படும் சாத்தியம் உண்டு. முக்கியமாக, ஒருவரின் சிறுவயதில் ஏற்படும் ஊட்டச்சத்துக் குறைபாடு,

அவரது **நோய்** எதிர்ப்புத்திறனைப் பெருமளவில் பாதிக்கும். உடல் பருமன் உடையோர், **நோய் எதிர்ப்புத்**

திறன் குறைந்து சளி, இருமல், நிமோனியா போன்ற சுவாச நோய்த் தொற்றுக்கு ஆளாகின்றனர். எனவே, முழுமையான **நோய்** எதிர்ப்புத்திறனைப் பெறுவதற்குச் சரிவிகித ஊட்டச்சத்து நிறைந்த சீருணவு அவசியம்.

உடற்பயிற்சியும் **நோய்** எதிர்ப்புத்திறனும்

உடற்பயிற்சி செய்வது என்பது ஏதோ 'சிக்ஸ் பேக்' வைப்பதற்கும், நீரிழிவு - ரத்த அழுத்த நோயாளர்களுக்கு மட்டும் உரியதும் அல்ல. தினம்தோறும் உடற்பயிற்சி செய்வது 'ஆக்டிவ் இம்யூனிட்டி'யை அதிகரிக்கும். மேலும், ரத்தத்தில் **நோய்** எதிர்ப்புத்திறன் காரணிகளின் (Immunoglobulins, Anti-inflammatory cytokines, Neutrophils, NK cells, Cytotoxic T cells, B cell) அளவையும் அதிகரிக்கிறது. இந்தக் காரணிகளே நோய்க்குக் காரணமான பாக்டீரியா, வைரஸ் போன்றவற்றைக் கண்டறிந்து உடலிலிருந்து அகற்றுவதில் பெரும் பங்காற்றுகின்றன. எனவேதான், எளிய உடற்பயிற்சி - யோகாசனப் பயிற்சி போன்றவை கரோனா நோய்த் தொற்றிலிருந்து மீள்வதற்குப் பயனுடையதாக அறியப்படுகின்றன.

மனநலமும் **நோய்** எதிர்ப்புத்திறனும்

மன உளைச்சல், மனச் சோர்வு, மன அழுத்தம் போன்ற உளவியல் பிரச்சினைகள் தொற்றுநோய்களுக்கு எதிரான **நோய்** எதிர்ப்புத்திறனைக் குறைப்பதோடல்லாமல் பாக்டீரியாக்கள்,

கரோனா வைரஸ் போன்ற நுண்ணுயிரிகள் உடலை எளிதாகப் பாதிக்கவும் ஏதுவாகின்றது. மனமும் உடலும் இணைந்து இயங்குபவை. எனவே, மனநலனுக்குப் போதிய முக்கியத்துவம் அளிப்பது, **நோய்** எதிர்ப்புத்திறனையும் அதிகரிக்கும்.

நல்ல தூக்கம் அவசியம்

தூக்கமின்மையால் புரோ-இன்ஃபிளமேட்டரி சைட்டோகைன்கள் எனப்படும் CRP, IL-6 - TNF-alpha போன்றவற்றில் ஏற்படும்

அதிகரிப்பு, **நோய்** வருவதற்கான சாத்தியத்தை

அதிகரிக்கிறது. மேலும், **நோய்** எதிர்ப்புக் காரணிகளான CD4, CD8 - NK செல்கள் போன்றவற்றின் செயல்பாடுகள் குறைக்கப்படுகின்றன. எனவே, முறையான தூக்கம் மிக அவசியம். தூக்கம் உடலுக்குப் புத்துணர்வு கொடுப்பதோடு, மெலடோனின் என்கின்ற ஹார்மோன் சுரப்பை அதிகரிக்கும். இது **நோய்** எதிர்ப்புத்திறனை மேம்படுத்த உதவும்.

புகையும் மதுவும் பெருங்கேடு

பொதுவாகவே, மேல் சுவாசப்பாதையில் காணப்படும் மியூகோசில்லரி செல்களின் செயல்பாட்டைக் குறைத்து, கரோனா தொற்று மட்டுமல்லாமல் பல்வேறு சுவாச நோய்கள் வருவதற்குப் புகைப் பழக்கம் சிவப்புக் கம்பளம் விரிக்கும். புகைப்பழக்கம்

உள்ளோரிடம் **நோய்** எதிர்ப்புத்திறன் தரவல்ல மரபணுக்கள் அளவில் குறைந்து காணப்படுவதாக அறிவியல் ஆய்வுகள் தெரிவிக்கின்றன.

மதுவின் அராஜகம் இரைப்பையில் தொடங்குகிறது. மது, இரைப்பையின்

வழியாகத்தான் ரத்தத்தில் கலக்கிறது. முன்னதாக, இரைப்பையிலும் குடலிலும் காணப்படும் பல்வேறு நன்மை செய்யும் பாக்டீரியாக்களை (Gut microbe) இது அழிப்பதுடன், **நோய்** எதிர்ப்புத்திறன் காரணிகளின் செயல்பாட்டையும் முடக்கி விடுகிறது.

ஆரோக்கிய வாழ்வே முக்கியம்

சமூகத்தில் ஒருவரின் மதிப்பை, எப்படி அவர் வாழ்ந்த வாழ்க்கை நிர்ணயிக்கின்றதோ, அதுபோல ஆரோக்கியமான உணவு முறை, உடற்பயிற்சி (அ) உடல் உழைப்பு, மன அமைதி, ஆழ்ந்த உறக்கம் ஆகிய காரணிகள் ஒருவருக்கு வலுவான **நோய்** எதிர்ப்புத்திறனை அளிக்கின்றன. **நோய்** எதிர்ப்புத்திறனால் மட்டுமே கரோனா ஒமைக்ரான் வைரஸ் போன்றவை மட்டுமல்ல; வருங்காலத்தில் வரப்போகிற இன்னும் பல வைரஸ்களையும் வெற்றிகரமாக எதிர்கொள்ள வழியமைக்கும். **நோய்** எதிர்ப்புத்திறனை மேம்படுத்தும் விதமாக வாழ்க்கைமுறையை ஆரோக்கியமாக மாற்றிக்கொள்வது காலத்தின் கட்டாயம்.

கட்டுரையாளர், தாம்பரம் தேசிய சித்த மருத்துவ நிறுவன மருத்துவர், தொடர்புக்கு: senthilkumarbr@gmail.com



ஸ்டிராய்டுகள் தவிர்க்கவும்...
இருமல் தொடர்ந்தால்
காசநோய் பரிசோதனை

செய்யுங்கள்; புதிய கோவிட் வழிகாட்டுதல்

ஸ்டிராய்டுகளைத் தவிர்க்க வேண்டும் எனவும் இருமல் தொடர்ந்தால் காசநோய்க்கான பரிசோதனை செய்துகொள்ளுங்கள் என்று மத்திய அரசு புதிய கோவிட் வழிகாட்டுதல்களில் கூறியுள்ளது.

Written by [WebDesk](#)
January 19, 2022 12:02:03 am

மத்திய அரசின் புதிய கோவிட் வழிகாட்டுதல்கள், 2-3 வாரங்களுக்கு மேல் இருமல் நீடித்தால், காசநோய் மற்றும் பிற நோய்களுக்கான பரிசோதனையை பரிந்துரைக்கிறது.

கொரோனா வைரஸ் நோயால் பாதிக்கப்பட்ட நோயாளிகளுக்கு சிகிச்சை அளிக்கும் மருத்துவர்கள் ஸ்டிராய்டு மருந்துகளை பரிந்துரைப்பதைத் தவிர்க்க வேண்டும் எனவும் கடுமையான இருமல் தொடர்ந்தால் அவர்களுக்கு காசநோய்க்கான பரிசோதனை செய்ய வேண்டும் என்றும் மத்திய சுகாதாரம், குடும்ப நல அமைச்சகம் அதன் புதிய வழிகாட்டுதல்களில் தெரிவித்துள்ளது.

சுகாதார அமைச்சகத்தால் திங்கள்கிழமை வெளியிடப்பட்ட வயதுவந்த கோவிட்-19 நோயாளிகளை நிர்வகிப்பதற்கான திருத்தப்பட்ட மருத்துவ வழிகாட்டுதல்களின்படி, ஸ்டிராய்டுகளின் பயன்பாடு கருப்பு பூஞ்சை போன்ற இரண்டாம் நிலை நோய்த்தொற்றுக்களின் அபாயத்தை அதிகரிக்கிறது, எனவே ஸ்டிராய்டுகள் அளிப்பதைத் தவிர்க்க வேண்டும் என அறிவுறுத்தியுள்ளது.

மேலும், இரண்டு முதல் மூன்று வாரங்களுக்கு மேல் இருமல் நீடித்தால், காசநோய் மற்றும் பிற நோய்களுக்கான பரிசோதனையை புதிய வழிகாட்டுதல்கள் பரிந்துரைக்கின்றன.

புதிய வழிகாட்டுதல்கள் மருத்துவ சிகிச்சையின் ஆரம்ப கட்டங்களில் ஸ்டிராய்டுகளின் பயன்பாட்டிற்கு எதிரான எச்சரிக்கை குறித்து கூறியிருப்பதாவது: “எதிர்ப்பு அழற்சி அல்லது இம்யூனோமோடூலேட்டரி சிகிச்சை (ஸ்டிராய்டுகள் போன்றவை) ஆரம்பத்திலேயே அதிக டோஸ் அல்லது தேவையான அளவைவிட அதிகம் பயன்படுத்தப்படும் போது, மியூகோர்மைகோசிஸ் போன்ற இரண்டாம் நிலை கருப்பு பூஞ்சை நோய்த்தொற்று அபாயத்தை ஏற்படுத்தும்” என்று எச்சரிக்கை செய்துள்ளது.

மருத்துவ ஆக்சிஜன் சுவாச உதவி தேவைப்படாத நோயாளிகளுக்கு போடக்கூடிய ஸ்டிராய்டு ஊசிகளின் நன்மைகளை நிரூபிக்க எந்த ஆதாரமும் இல்லை என்று சுகாதார அமைச்சகத்தின் கோவிட் தேசிய பணிக்குழு சுட்டிக்காட்டியுள்ளது.

லேசான உள்ள நோயாளிகள் வீட்டிலேயே தனிமைப்படுத்தப்பட்டாலும், கடுமையான நோயாளிகள் தீவிர சிகிச்சைப் பிரிவுகளில் அனுமதிக்கப்பட வேண்டும் என்று கோவிட் தேசிய பணிக்குழு விதிகளை வகுத்துள்ளது. இதனிடையே, மிதமான அறிகுறிகளைக் கொண்ட நோயாளிகள் கோவிட் வார்டில் அனுமதிக்கப்பட வேண்டும் என்று அறிவித்துள்ளது.

ஆக்சிஜன் அளவு, சுவாச விசிதங்களின் அடிப்படையில், லேசான தொற்று,

மிதமான தொற்று, கடுமையான தொற்றுநோய் வகைகளின் கீழ் யார் வருவார்கள் என்பதையும் இந்த புதிய வழிகாட்டுதல்கள் வரையறுக்கின்றன.

இந்த வார தொடக்கத்தில், சுகாதாரத்துக்கான நிதி ஆயோக் உறுப்பினர் டாக்டர் வி கே பால், ஸ்டிராய்டுகள் உட்பட கோவிட் மருந்துகளின் அதிகப்படியான பயன்பாடு மற்றும் தவறாகப் பயன்படுத்தப்படுவதற்கு எதிராக எச்சரித்தார்.

“நாம் கொடுக்கும் எந்த மருந்துகளும் பகுத்தறிவுடன் பயன்படுத்தப்பட வேண்டும். அதிகப்படியான பயன்பாடு இருக்கக்கூடாது என்பதில் அக்கறை இருக்க வேண்டும். கடந்த முறை, மியூகோர்மைகோசிஸுக்கு மருத்துவத்தின் பங்களிப்பு மிகப் பெரிய அளவில் காரணமாக இருந்தபோது நாம் மிகவும் பயங்கரமான சூழ்நிலையை கண்டோம்” என்று அவர் ஒரு செய்தியாளர் சந்திப்பில் கூறினார்.

our other publications...



NIRT Library
National Institute for Research in Tuberculosis
(Indian Council of Medical Research)
1, Mayor Sathyamoorthy Road
Chetpet, Chennai 600031
Tel: 91 44 28369637 | Fax: 91 44 28362525
Email: nirtlibrary@nirt.res.in

Information is power