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# *news* **bulletin** *Library*



# NEWS BULLETIN

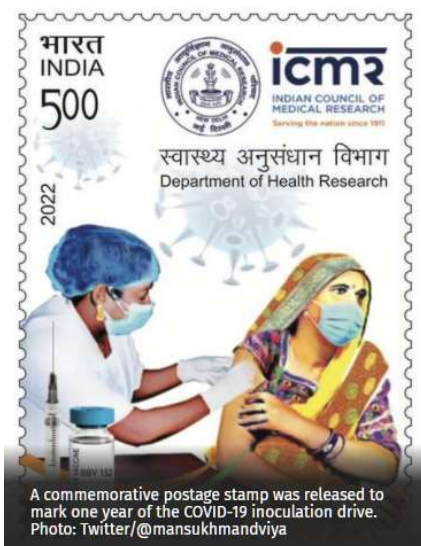
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A weekly publication from NIRT Library

THE  HINDU

## 70% Indian adults fully vaccinated against COVID-19, 93% receive at least one dose

NEW DELHI, JANUARY 16, 2022 17:29 IST



India has been able to achieve the milestone of administering over 156 crore doses.

The countrywide vaccination drive against COVID-19 on Sunday completed one year, during which over 156.76 crore vaccine doses were administered.

According to health ministry officials, over 93% of the adult population have received at

least one dose while over 69.8% have been fully vaccinated.

A commemorative postage stamp on indigenously developed vaccine Covaxin was released to mark one year of the inoculation drive.

Earlier in the day, Union Health Minister Mansukh Mandaviya, in a tweet, said that India crossed the landmark milestone of administering 10 crore vaccine doses on April 1 last year.

**NEWS** 18

## Is Deltacron a New Covid-19 Variant? WHO Clears Air on Infection with Delta and Omicron

UPDATED: JANUARY 13, 2022, 19:04 IST



Days after experts said that Deltacron, an alleged hybrid coronavirus mutation discovered in a Cyprus lab, is most likely the result of a lab contamination, the World Health Organization (WHO) has said that the term is being used when a person is infected with both Delta as well as the Omicron variant of the Covid-19. It added that Deltacron is "not really a thing.".....

**Continued in page No.31**

As many as 25 crore vaccine doses were administered on June 25, crossed 50 crore COVID-19 vaccine dose on August 6 and 75 crore on September 13, he said.

## THE HINDU

### Omicron a 'deviant' from COVID-19 pandemic progression script: Virologist T. Jacob John

NEW DELHI, JANUARY 17, 2022 04:23 IST

**Future variants may be more infectious and less pathogenic, he says**

Omicron is a "deviant" from the COVID-19 pandemic progression script and so it must be postulated that two pandemics are going on side by side, one by the Delta and close relatives and the other by the latest variant of concern, said noted virologist Dr. T. Jacob John.

Speaking to PTI on how the pandemic can now be expected to progress, he pointed out that Omicron is not "fathered, or mothered, by Wuhan-D614G, Alpha, Beta, Gamma, Delta, Kappa or Mu and that much is for sure".

"So in my opinion, this is a variant of unknown proximal parentage... We shall see as the pandemic progresses," John, a former director of the ICMR's Centre of Advanced Research in Virology, said.

D614G refers to an amino acid mutation in this protein that has become increasingly common in SARS-CoV-2 viruses from around the world.

"Since Omicron is illegitimate or 'deviant' from COVID-19 pandemic progression script, we must think of two pandemics going on side by side -- Delta and close relatives, and Omicron and its variants in future.

"Diseases caused by them are also different. One is Pneumonia-hypoxia-multiorgan damage disease but the other an upper/middle respiratory disease that pushes pre-existing chronic disease or old age beyond the wall," he said.

Asked if the peak of the third wave has been reached since cases have started plateauing in some places, John said metro cities started first and will finish first.

"All put together is a national epidemic," he said.

On whether the upcoming COVID-19 variants would be more infectious but less lethal, John said generally new pathogens get adapted to human hosts and in the process tend to become more infectious and less pathogenic, within limits.

"Time frame is long, not one or two years... Remember, Delta came late but was both faster-spreading and more pathogenic," he said.

Omicron, the highly infectious variant of coronavirus, is driving the third wave of COVID-19 pandemic in India.

The country registered 2,71,202 new coronavirus infections, taking the tally of COVID-19 cases to 3,71,22,164, including 7,743 cases of the Omicron variant, according to the Union Health Ministry data on Sunday.

## THE HINDU

### Marginal, yet steady rise in ICU admissions across hospitals

CHENNAI, JANUARY 14, 2022 01:05 IST

Serena Josephine M.

## Hospitalisation trends

Occupancy level of the beds in various facilities in Chennai between January 7 and 13

<b>Earmarked COVID-19 Beds</b>	Oxygen beds	Non-O <sub>2</sub> beds	Intensive Care Unit beds
	<b>8,082</b>	<b>3,666</b>	<b>1,946</b>

Date	Occupancy status		
	Oxygen beds	Non-oxygen beds	ICU
07/01/22	921	1,117	122
08/01/22	1,167	1,017	140
09/01/22	1,035	1,292	182
10/01/22	1,234	1,380	222
11/01/22	1,304	1,338	238
12/01/22	1,284	1,456	261
13/01/22	1,328	1,407	256



Source: Department of Public Health and Preventive Medicine

**Most of those turning up in critical condition are senior citizens with co-morbidities; many of these elderly persons are also not vaccinated**

There is a small but steady rise in the number of patients with COVID-19 admitted to Intensive Care Units (ICU) in hospitals in Chennai. Old age and co-morbidities are the main factors pushing up these admissions, say doctors. Many of these patients were also not vaccinated.

According to hospitalisation data in the daily bulletin issued by the Directorate of Public Health and Preventive Medicine, the number of ICU admissions have gradually risen from 82 on January 1 to 256 on January 13. Doctors across hospitals observed that only the elderly with co-morbidities were admitted to ICUs as of now. While some said there could be a mix of patients with Delta and Omicron variants in the ICU, which cannot be confirmed without sequencing of samples, a few pointed out that there were no significant findings of lung involvement in chest CT as of now.

S. Chandrasekar, professor and head, Department of Medicine, Government Stanley Medical College Hospital, said persons who were not vaccinated had more severe disease. "Age and multiple co-morbidities play a crucial role.

Here, 80% of patients are aged above 60 and have uncontrolled co-morbidities such as diabetes, hypertension, renal ailments and cancer. They have a more severe form of disease," he said.

While Omicron is known to cause mild disease, he said : "It has still not replaced Delta variant, which is in circulation. Given the rise in the number of cases, ICU admissions will be more. So, we are prepared and have strengthened the ICU team with recent management and triaging patients in the wards through a six-minute walk test to ascertain the severity of the disease and identify patients who are deteriorating early. All 19 patients in ICU admission now had significant elevation of C-Reactive Protein and D-Dimer on admission, which are immunological markers for severity of the disease.," he said. One of the main reasons for steady rise in ICU admissions was co-morbidities, with diabetes, hypertension and obesity being the main ones, according to E. Theranirajan, dean of Rajiv Gandhi Government General Hospital. "Many of them are aged above 70 and are not vaccinated.," he said. Of the 172 patients in admission, 19 were in the ICU. Some were seeking medical help late and there were instances of referrals from private hospitals as well. K. Narayanasamy, director of Government Corona Hospital, said the number of ICU admissions was slightly on the rise. At any given point of time, there are 10 to 15 patients in the ICU of the hospital. "Nevertheless, they required minimal oxygen of two to four litres. There are no young or middle-aged persons in the ICU. Age and co-morbidities are the key factors. We are admitting only those who require oxygen support and drugs," he said.

"When compared to the second wave, the number of ICU admissions is less now. When we take overall hospitalisations, the number of persons requiring oxygen support and ventilatory support is very less when compared to the previous wave of Delta variant. So, there is a clear difference between Delta and Omicron

variants on the severity of disease," said R. Ebenezer, senior consultant and head, Critical Care Services Apollo Speciality Hospitals, Vanagaram.

It was the elderly with immuno-compromised conditions and not vaccinated who were becoming sicker now. "This is a small number. Omicron is rapidly replacing Delta variant," he said and added that in the observation of radiologists, there was nil or minimal lung involvement found in chest CTs. "In the second wave, if we took 10 CTs, eight found lung involvement. This has almost reversed now. Almost every CT is negative for lung involvement or has minimal involvement," he said.

Dr. Chandrasekar pointed out there was no significant findings in CT scans now.

been spreading rapidly and although it is causing "mild" symptoms in infected individuals, it is capable of circumventing the protection offered by vaccines, said scientists of Centre for Cellular & Molecular Biology (CCMB) on Wednesday.

The latest strain, first noticed in Africa, has been behaving like a typical pandemic-causing pathogen in being more infectious, yet with "mild" symptoms of cold, fever, headache, sore throat, etc. This could, however, prove dangerous for the immuno-compressed and the elderly, and so it cannot be taken lightly, they asserted in an online interaction.

Evidence from South Africa and England is showing that the current vaccines do protect from severe disease and mortality, if not from the infection itself, as the hospitalisation rate is considerably low in comparison to the scenario during the Delta-induced second wave last year, they said.

The premier scientific institute has been closely following the quick spread of the variant in a small duration of time, including through genome sequencing. Scientists have said that Omicron was reported in November last year and within a month, there was an uptick in the country's caseload. The variant is slated to quickly overtake Delta, given the increased local transmission.

"Every week we have been looking at this lineage and it has now become the predominant variant. We are also monitoring the three sub-lineages to check their progress. We have designed primers to detect Omicron and made it into RT-PCR kits. We have tested samples and they have been showing good accuracy," said scientist Divya Tej Sowpati.

His colleague Karthick Bharadwaj explained that Omicron had developed significant immune escape properties and was infectious as can be seen in highly vaccinated countries like the UK

## THE HINDU

### Omicron to become dominant strain: CCMB scientists

HYDERABAD, JANUARY 13, 2022 00:42 ISI  
V. Geetanath



**'Can circumvent vaccine protection, prove dangerous for the elderly and the immuno-compressed'**

Omicron is sure to become the predominant COVID strain across the country soon as it has

where the cases have shown a steep rise. However, the mortality rate is low.

### Testing and isolation

A N-95 mask, open spaces, good ventilation and vaccination reduce the risk of infection. A regular RT-PCR test does detect the infection, even if it may not be able to identify Omicron as the variant, and it was not necessary to go for repeat 'negative' test, he said, adding that nine days of isolation should be sufficient.

CCMB director Vinay Kumar Nandicoori said booster doses provide "some level of protection if not total" but ruled out the possibility of the pandemic ending any time soon as another variant of concern could well emerge.

"It is anybody's guess; science is evolving and our mitigation methods are getting better," he said.

He pointed out that India, with 5 lakh fatalities, ranks second in the number of reported deaths after the United States (8.5 lakh). Over 55 lakh deaths have been reported worldwide.

The Spanish Flu, which raged on for two years a century ago, and had three waves, claimed four crore lives which meant that the current mitigation efforts have been effective in terms of diagnosis or vaccines.

## THE HINDU

### COVID-19 cases rose by more than 50%: WHO

GENEVA, JANUARY 12, 2022 22:13 IST  
Number of deaths remain stable



The number of new coronavirus infections in the last week jumped by about 55%, although the number of deaths remained stable, the World Health Organization said in its latest pandemic report.

In the weekly report issued on Tuesday night, the UN health agency said there were about 15 million new COVID-19 cases last week and more than 43,000 deaths. Every world region reported a rise in COVID-19 cases except for Africa, where officials saw an 11% drop.

Last week, WHO noted a pandemic record high of 9.5 million new infections in a single week, calling it a "tsunami" of disease.

WHO said the extremely contagious Omicron variant continues to define the pandemic globally and is now crowding out the previously dominant delta variant. WHO said Omicron had now proven to have a shorter doubling time, with increasing evidence it was able to "evade immunity."

Scientists in Britain and the U.S. say there are early signs the crush of Omicron may have peaked, but they are still uncertain how the next phase of the pandemic might unfold.

## Experts divided over ICMR advisory on 'purposive testing strategy'

BENGALURU, JANUARY 12, 2022 01:20 IST

**COVID-19 experts in Karnataka have expressed mixed views over the Indian Council of Medical Research's latest advisory on 'Purposive Testing Strategy for COVID-19' that said contacts of COVID-19 patients do not need to be tested unless identified as high-risk based on age**

COVID-19 experts in Karnataka have expressed mixed views over the Indian Council of Medical Research's (ICMR) latest advisory on 'Purposive Testing Strategy for COVID-19' that said contacts of COVID-19 patients do not need to be tested unless identified as high-risk based on age.

According to the advisory issued on Monday, asymptomatic patients undergoing surgical or non-surgical invasive procedures, including pregnant women in/near labour who are hospitalised for delivery, should not be tested unless warranted or symptoms develop. It said no emergency procedure, including surgeries, should be delayed due to lack of a test. Besides, inter-State travellers also need not be tested.

However, COVID-19 experts in Karnataka said the advisory is against the basic principle of containing the pandemic.

C.N. Manjunath, nodal officer for labs and testing in the State's COVID-19 task force and member of State's Clinical Expert Committee, said the advisory is debatable and requires consensus from public health experts and epidemiologists. "It goes against the basic principle of containing the pandemic. If primary contacts are not traced and tested, they can spread the infection easily," he said.

Asserting that the testing strategy should be individualised, the doctor said important aspects that need to be considered include the proximity between the positive patient and the contact and the duration of exposure. "Whether they are in the same building, whether the place is well ventilated, whether the infected person had a cough and other symptoms: all these need to be considered before deciding on whether to test or not," he said. Epidemiologist and public health specialist Sunil Kumar D.R., who heads the department of community medicine at Akash Institute of Medical Sciences, said contact tracing and testing is a key strategy for interrupting the chain of transmission of SARS-CoV-2 and reducing COVID-associated mortality.

"Giving an advisory that testing is not required for asymptomatic contacts, asymptomatic patients undergoing surgeries, and for persons taking inter-State travel will increase the caseload and healthcare system may be overburdened with shortage of healthcare staff. If asymptomatic patients are not tested prior to surgery, healthcare workers will be at risk," said Dr. Sunil, who is part of BBMP's death audit committee.

However, V. Ravi, member of the State's Technical Advisory Committee (TAC), termed the ICMR advisory as a practical piece of guideline, specific to Omicron variant.

"As the incubation period is so short and considering the pace at which the infection is spreading, it is practically not possible to trace contacts of all positive cases," he said.

Asserting that the onus is now on people, Dr. Ravi, who is the nodal officer for genomic confirmation of SARS-CoV-2 in Karnataka, said: "If people know they have been exposed and have developed symptoms, they can come forward and get tested. The advisory should not be interpreted that testing is not at all required for contacts."

U.S. Vishal Rao, member of the State's Genomic Surveillance Committee, also termed the advisory as an excellent step. "At this juncture when the pandemic is raging, if you go on testing you will overwhelm the diagnostics. This will not even translate into an effective intervention for asymptomatic individuals," he said.

Pointing out that there is compelling data to show that Omicron will not increase hospitalisation or fatality, Dr. Rao said: "The advisory is a more mature step towards the direction of understanding that as we move towards this phase of endemicity we will have to lower the burden on the healthcare system. This should not be misconstrued as a premature claim of victory against the virus. The ICMR is only asserting a citizen-driven responsibility and not a State-driven enforcement."

## THE HINDU

### **Contacts of confirmed cases don't need to get tested unless identified as high-risk: ICMR**

NEW DELHI, JANUARY 10, 2022 22:50 IST

#### **The Hindu Bureau**

Contacts of confirmed COVID-19 patients do not need to be tested unless identified as high-risk based on age or co-morbidities, the Indian Council of Medical Research (ICMR) said on Monday.

Individuals with symptoms such as cough, fever, sore throat or loss of taste or smell too need to be tested.

In a fresh set of guidelines, the ICMR said testing of samples is needed for at-risk contacts of

patients who are above 60 years of age and individuals with co-morbidities such as diabetes, hypertension, chronic lung or kidney disease, malignancy and obesity.

Also individuals undertaking international travel (as per country-specific requirements) may be tested.

For hospitals, the ICMR directed that no emergency procedure should be delayed for lack of a test, and patients should also not be referred to other facilities for lack of a testing facility.

#### **Don't test women in labour**

In another important indication, the ICMR said asymptomatic patients undergoing surgical or non-surgical invasive procedures, including pregnant women in/near labour who are hospitalised for delivery, should not be tested unless warranted or symptoms develop.

It added that patients discharged after home isolation or patients being discharged from a COVID-19 facility need not be tested.

The ICMR said the advisory was generic in nature and could be modified as per the discretion of the State health authorities for specific public health and epidemiological reasons. "Testing can be undertaken either through RT-PCR, TrueNat, CBNAAT, CRISPR, RT-LAMP, Rapid Molecular Testing Systems or through Rapid Antigen Test (RAT)," it said.

A positive point-of-care test (home or self-test/RAT) and molecular test is to be considered confirmatory without any repeat testing, it added.



## For coronavirus testing, the nose may not always be best

Collecting samples of saliva, or swabbing the inside of the mouth, could help identify people who are infected with the virus days earlier than nasal swabs do, some research suggests.

By: [New York Times](#) |

Updated: January 15, 2022 10:25:39 am



Kestlyn Willert takes a saliva-based COVID-19 test at the University of Minnesota's field house in Minneapolis, Nov. 16, 2020. As Omicron spreads, some experts are calling for a switch to saliva-based tests, which may detect infections days earlier than nasal swabs do. (Image/The New York Times)

**Written by Emily Anthes**

Over the past two years, diagnosing a [coronavirus](#) infection has [often required probing the nose](#). Health care workers have inserted slender swabs deep into the recesses of Americans' nasal passages, while at-home test kits have asked us to master the shallow double-nostril twirl.

"The traditional approach to diagnosing respiratory infections has been to go after the nose," said Dr Donald Milton, an expert on respiratory viruses at the University of Maryland.

But the rapid spread of the [omicron](#) variant, and questions about the sensitivity of at-home tests, have rekindled a debate over whether the best way to detect the virus is to sample a different site: the mouth.

"The virus shows up first in your mouth and throat," Milton said. "That means that the approach we're taking to testing has problems."

Collecting samples of saliva, or swabbing the inside of the mouth, could help identify people who are infected with the virus days earlier than nasal swabs do, some research suggests.

The science is still evolving, and the data paint a complex picture, suggesting that saliva-based tests have limitations of their own. Many labs are not currently set up to process saliva, nor are the at-home antigen tests available in the United States authorised for it.



A man receives instructions for taking a saliva-based PCR Covid-19 test at a community testing site in Davis, California, Jan 25, 2021. (Image/The New York Times)

But even saliva sceptics acknowledge that oral specimens have some unique advantages. And with omicron on the march, some experts say that testing companies, labs and federal officials should be working more urgently to determine the best sample sites and types for the virus.

"We need to be adaptable," said Anne Wyllie, a microbiologist at the Yale School of Public Health, who is one of the developers of

SalivaDirect, a noncommercial polymerase chain reaction (or PCR) testing protocol. "I see so many either labs or governments who are so fixated on a certain sample type or a certain test that even with changing data or test preferences, they don't make the necessary adaptations to their testing programs."

### The case for saliva

Scientists began investigating saliva testing in the early months of the pandemic. They were eager to find a testing method that would be more comfortable than the deep nasopharyngeal swabs that were the standard at the time and that would not require trained health care workers or nasal swabs, both of which were in short supply. With saliva, people could simply spit into a tube and hand it over for processing.

Some laboratory professionals were sceptical that saliva testing would be a reliable way to detect infection.

"There were concerns initially that saliva was not the gold standard sample, that it wasn't the most sensitive sample," said Glen Hansen of the clinical microbiology and molecular diagnostics laboratory at Hennepin County Medical Center in Minnesota.

But by fall 2020, dozens of studies had suggested that saliva was a suitable sample for testing.

"There's been a growing body of evidence that at the very least, saliva performs well — it's as good as, if not better, when it's collected properly when it's processed properly," Wyllie said.

Evidence also emerged that the virus tended to appear in saliva before it built up in the nose, suggesting that saliva samples might be the best way to detect infections early.

Milton and his colleagues recently found that in the three days before symptoms appear and the

two days after, saliva samples contained about three times as much virus as nasal samples and were 12 times as likely to produce a positive PCR result. After that, however, more viruses began accumulating in the nose, according to the study, which has not yet been published in a scientific journal.

The Food and Drug Administration has now authorised numerous saliva-based PCR tests, which have proved popular for screening students in schools.

"Saliva really has turned out to be a valuable specimen type and one that has increasingly been advocated as a primary testing sample," Hansen said.



Workers at a drive-up [Covid-19](#) testing clinic stand in a tent as they prepare PCR coronavirus tests, Jan 4, 2022, in Puyallup, south of Seattle. (AP)

Saliva's advantages may be more pronounced with omicron, which appears to replicate more quickly in the upper respiratory tract and have a shorter incubation period than earlier variants. Any testing method that can reliably detect the virus earlier is particularly valuable, experts said.

"I think omicron has really changed the testing game because of how quickly the virus replicates and how quickly it spreads," said Dr Robby Sikka, who chairs the Covid-19 Sports and Society Working Group and who helped bring saliva testing to the NBA in 2020. (Both Sikka and Wyllie serve as unpaid board members for SalivaDirect.)

Some experts have also theorised that omicron may be better at replicating in the cells of the mouth and throat than other variants have been.

A team of South African researchers recently found that while nasal swabs performed better than saliva swabs when detecting the [delta variant](#), the opposite was true for omicron. (The study, which used PCR tests, has not yet been reviewed by experts.)

More research is needed, and another small new study, conducted at a San Francisco testing site during an omicron surge, was less encouraging. Of the 22 people who tested positive on a rapid antigen test using standard nasal swabs, only two tested positive when their inner cheeks were swabbed. Scientists are currently studying whether throat swabs perform better.

### **The complications**

Saliva also has trade-offs. While the virus appears to build up in saliva early, the nose may be a better place to detect it later in the course of infection.

Researchers at the California Institute of Technology found that while the virus often spiked first in saliva, it ultimately rose to higher levels in the nose. Their results suggest that highly sensitive tests, like PCR tests, may be able to pick up infections in saliva days earlier than they do in nasal swabs, but that less-sensitive tests, like antigen tests, might not.

The data on saliva is still mixed, some experts noted.

"There are these few studies that I have found really very interesting," said Dr Mary K Hayden, an infectious disease doctor and clinical microbiologist at Rush University Medical Center in Chicago.

But Hayden said she was interpreting the new studies cautiously because "for years and years and years," research has suggested that nasopharyngeal specimens are best for detecting respiratory viruses.

Some scientists also have practical concerns. The mouth is "a little more of an uncontrolled environment compared to the nasal passages," said Joseph DeRisi, a biochemist at the University of California, San Francisco, who is a president of the Chan Zuckerberg Biohub and an author of the cheek swab paper. "Did you drink a Coke right before you took the test? The pH will be different. And those things matter."

Saliva can be "viscous and difficult to work with," especially when patients are sick and dehydrated, Dr Marie-Louise Landry, director of the clinical virology laboratory at Yale New Haven Hospital, said in an email.

*A man walks past a mural on a street, amidst the spread of the coronavirus in Mumbai. (Reuters)*

Ultimately, different approaches may be required in different circumstances. For people who have had symptoms for several days, nasal swabs might be a good choice, while saliva might be best suited for the large-scale surveillance screening of asymptomatic people, Hansen suggested. "We need to get the right test into the right places," he said.

In Britain, some at-home tests require swabbing both the throat and the nose, an approach that may be worth pursuing, experts said.

"Sampling multiple sites is always going to give you an edge," Hayden said.

But if test manufacturers want to add saliva samples or throat swabs, they will need to validate their tests with those samples and submit the data to regulators. At a Senate hearing Tuesday, Dr Janet Woodcock, acting commissioner of the FDA, noted that

manufacturers might also have to reconfigure their tests to accommodate the larger swabs that are designed for the throat.

It is not yet clear whether any of the major at-home testing companies have plans to do so. "We continue to monitor and evaluate," said John M. Koval, a spokesperson for Abbott Laboratories, which makes rapid antigen tests. "Our test is currently indicated for nasal use only."

Even scientists who were convinced of saliva's potential were reluctant to recommend that people swab their mouths or throats with tests that are not authorised for that purpose. (The FDA has also warned against this.) The biochemistry of the mouth is different from that of the nose and may affect the test results, potentially yielding false positives, scientists said.

"It's not as easy as just saying, 'Hey, just use a rapid antigen for saliva,' " Hansen said.

But experts said they hoped that laboratories, test manufacturers and regulators would move swiftly to evaluate whether any currently available tests might perform better on other sample types.

Ultimately, the country will be well-served by having a wide variety of testing options and the ability to switch between them as circumstances warrant, scientists said.

*Workers at a drive-up [Covid-19](#) testing clinic stand in a tent as they prepare PCR coronavirus tests, Jan 4, 2022, in Puyallup, south of Seattle. (AP)*

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*A man walks past a mural on a street, amidst the spread of the coronavirus in Mumbai. (Reuters)*

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## Explained: How two drugs newly recommended by WHO work against Covid

**Baricitinib, used to treat rheumatoid arthritis, suppresses inflammation; sotrovimab is a monoclonal antibody used for treating conditions created by coronavirus infection**

Written by [Anuradha Mascarenhas](#) , Edited by Explained Desk | Pune |  
Updated: January 16, 2022 6:50:44 am



*The recommendations are based on evidence from seven trials involving over 4,000 patients with non-severe, severe, and critical Covid-19. (AP Photo: Petr David Josek/File)*

The World Health Organization (WHO) [has recommended](#) two drugs, baricitinib and sotrovimab, for treatment of [Covid-19](#).

### The drugs

Baricitinib, which is also used to treat rheumatoid arthritis, has been “strongly recommended” for patients with severe or critical Covid-19 in combination with corticosteroids. It is part of a class of drugs called Janus kinase (JAK) inhibitors that suppress the overstimulation of the immune system. It is an oral drug, and provides an alternative to other arthritis drugs called Interleukin-6 receptor blockers, recommended by WHO in July 2021.

Sotrovimab, developed by GlaxoSmithKline with US partner Vir Biotechnology Inc, is an investigational monoclonal antibody for use in treating conditions caused by [coronavirus](#). The WHO has conditionally recommended its use for treating mild or moderate Covid-19 in patients who are at high risk of hospitalisation. These include patients who are older, are immunocompromised, and have underlying conditions like diabetes, hypertension and obesity, and are unvaccinated. The US Food and Drug Administration (FDA) too has approved an emergency use authorization (EUA) for the therapy for the treatment of mild to moderate Covid-19 in patients above 12 years.

### How they work

Baricitinib, an immunomodulator, is an alternative to tocilizumab: either of these drugs is given to patients who have severe Covid-19, are clinically progressing on steroids and have high inflammatory markers.

“Basically, during the severe phase of Covid-19 there is an inflammation that triggers severe disease. This is mediated by certain inflammatory markers which are then inhibited by Baricitinib,” said Dr Sanjay Pujari, member of ICMR national Covid-19 task force.

Infectious disease experts said they have been using baricitinib ever since the publication of the COV BARRIER study on the drug. During the wave

of infections with Delta, there was a shortage of tocilizumab, and baricitinib was an alternative drug. "Both have different mechanisms of action but studies have shown mortality benefit if used with steroids in patients with serious Covid-19 disease," Dr Pujari said.

Rheumatologist Dr Arvind Chopra said Olumiant (baricitinib) is a prescription medicine used to treat adults with moderately to severely active rheumatoid arthritis. "Its ability to inhibit inflammation is also shown clearly as an antiviral drug. However it is advised that doctors should not prescribe in mild to moderate cases," he said.

The antibody cocktail casirivimab-imdevimab is not active against the [Omicron](#) variant whereas sotrovimab can be used in mild illness with patients of both Delta and Omicron at risk of high progression, said Dr Amit Dravid, infectious diseases consultant.

### Availability in India

Baricitinib is cheap and widely available. It is given to control hyper inflammation, which usually starts between days 7 and 14. "The patient starts becoming breathless and that is the time we use steroids and add tocilizumab. In case there is a spike in hospital admissions, there is an alternative, baricitinib, which is widely available," Dr Dravid said.

Sotrovimab is not available in India. However, experts said that since Omicron now forms the major proportion of infections, the currently available monoclonal antibodies should be used only if there is clear proof that the person has been infected with the [Delta variant](#).

### What the recommendation means

The latest WHO recommendations form the eighth update of WHO's living guidelines on therapeutics and Covid-19. They are based on evidence from seven trials involving over 4,000

patients with non-severe, severe, and critical Covid-19.

According to Prof K Srinath Reddy, president of the Public Health Foundation of India, the approval will be granted by the national regulator who may take into consideration the recommendation of credible national agencies like WHO.

Baricitinib has long been recommended in the US and Europe in their guidelines



## Covaxin for children: Facts you need to know

The vaccine is now permitted to be given to children between 15-18 years in India.

By: [Parenting Desk](#) | New Delhi |  
January 14, 2022 8:04:54 pm



Covaxin is safe to take and recommended for children suffering from asthma, kidney, or lung diseases. (Express File Photo)

By Dr Sreelekha Daruvuri

The [Covid-19](#) pandemic has impacted a lot of us in many different ways — our physical and mental health, as well as the economy. Even though vaccinations for adults were available

([Covaxin](#), Covishield, Sputnik) and brought some relief, it also raised many questions about protecting young citizens as well. Many caregivers were worried if children would be able to get vaccinated against the virus as well. The infection rate in children is less compared to the adult population and so are the complications, but that does not mean they don't need to be vaccinated. Covaxin was officially approved for children aged 2 to 18 and from January 3, 2022, and children aged 15 to 18 can get the Covaxin first dose of vaccine.

### **Covaxin for children**

Children born in 2007 or after are eligible for the first dose of vaccine.

\* Appointment can be taken online or onsite (walk-in). Please note, only Covaxin will be administered, as Emergency Use Listing (EUL) authorisation has been granted only to Covaxin by the World Health Organization.

\* The gap between Covaxin and any other vaccine should be a minimum of two weeks and a doctor's advice is to be taken before getting the jab.

\* Covaxin is safe to take and recommended for children suffering from asthma, kidney, or lung diseases. But, it's advisable to speak with your doctor before getting the jab. If there are any side effects, report immediately to your healthcare provider.

\* If someone is allergic to any of the vaccine's components, it's best to consult your doctor before getting vaccinated.

### **Why should children get vaccinated?**

Covid is a respiratory infection that affects individuals of any age group. It can cause no symptoms to dreadful complications like respiratory failure and death. In India, so far we have seen two waves that affected both adults and children. In the first wave, the infection rate in children was less, but in the second wave, it increased. The complication rate in the form

of [MIS-c](#) increased, too. This is one of the main reasons why it is important to vaccinate children.

Older children have complications like [long-Covid](#) which is manifested after 2-3 months of recovery, like adults. Now that we have the adult population getting vaccinated, this makes children more vulnerable to infection, especially the variants. This will shift the burden of infection to children. Though, according to experts, 60 per cent seroprevalence occurred in the pediatric age group, we are yet to understand how long this will protect the individual. Delaying the vaccination can make their reservoirs.

The vaccine is now permitted to be given to children between 15-18 years in India. The study will continue and safety data will be submitted to the health committee every two weeks for the first few months. At the same time, children should be educated on how to follow safety protocols and the same should be practised at home and in schools.

If your [child is exhibiting symptoms of Covid](#), make sure to contact a pediatrician or a general physician immediately. Speak to the professional to determine if the child has Covid and a treatment plan will be set accordingly. It may be scary to follow a new protocol, but it's important to remember that Covaxin has gotten approval for kids aged 15-18 now. The vaccine tested is safe and effective, and while data continues to be gathered, there should be no fear about getting vaccinated. It reduces the chances of grave illness and complications, helping children recover faster.



## Can common cold provide protection against Covid-19? Here's what a study says

The researchers found that T-cells — a type of white blood cell that helps protect the body from infection — from common cold coronaviruses may be able to provide protection against Covid

By: [Lifestyle Desk](#) | New Delhi |  
Updated: January 15, 2022 7:16:52 pm

High levels of T-cells from a [common cold](#) could provide some protection against the [Covid-19 virus](#), a recent study has suggested.

Published in *Nature Communications*, the research looked at people who were exposed to the virus early on during the [pandemic](#). The researchers found that T-cells — a type of white blood cell that helps protect the body from infection — from common cold [coronavirus](#) may be able to provide protection against Covid.

“Being exposed to SARS-CoV-2 virus doesn't always result in infection, and we've been keen to understand why,” Rhia Kundu, PhD, the lead study author from Imperial's National Heart and Lung Institute, said in a statement.

In a study involving 52 [unvaccinated people](#) who lived with someone who had just tested positive for the virus, the research found that those who did not catch the virus had significantly higher levels of T-cells than people who did get infected.

“Our study provides the clearest evidence to date that T cells induced by [common cold](#) coronaviruses play a protective role against (Covid) infection,” Professor Ajit Lalvani, senior author of the study, said.

He added, “These T cells provide protection by attacking proteins within the virus, rather than the spike protein on its surface.”

“New vaccines that include these conserved, internal proteins would, therefore, induce broadly protective T-cell responses that should protect against current and future SARS-CoV-2 [variants](#),” Lalvani said.

Researchers, however, emphasise that no one should rely on this research alone and people should get vaccinated to protect themselves from the virus.

According to Dr Saad Hafeez Usmani, Consultant-Internal Medicine, Manipal Hospital, Varthur Road, “This data could be beneficial for the next steps of Covid vaccine development with a focus on internal proteins for a lasting protection as T-cells response persists longer than antibody response that fades within a few months of vaccination.”

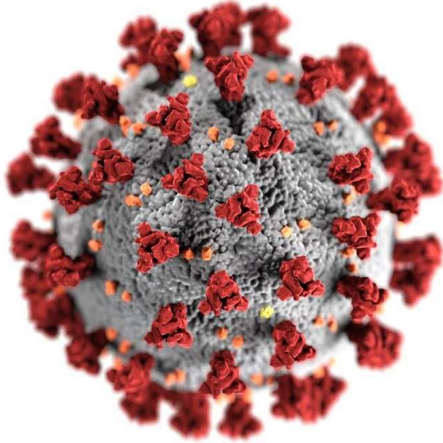
However, Dr Usmani said relying only on this study is not advisable. “Although it's an important discovery, due to a small sample size and no ethical diversity, it should be considered only one form of protection and to rely only on it is not advisable.”

“The best way to protect yourself against [Covid-19](#) is to be fully vaccinated, including getting your [booster dose](#),” he suggested.

## Can you get the flu and Covid at the same time?

By: [New York Times](#) | New York |  
January 13, 2022 10:30:13 pm

A co-infection doesn't immediately mean that a patient will be doubly sick. A strong immune response may actually help the body fight off pathogens of all types, so one infection could stimulate some additional protection.



Reports about dual infection with the flu virus and the coronavirus have been making sensational headlines recently. (Photo: Pexels)

By Amelia Neirenberg

Reports about dual infection with the [flu virus](#) and the [coronavirus](#) have been making sensational headlines recently. Last week Israel confirmed its first case of "flurona," in an unvaccinated woman, followed by a [growing](#) number of [cases](#) in [children](#) in the United States. None were seriously ill, but the name "flurona" stuck.

"It sounds like 'sharknado,'" Dr. Saad B. Omer, the director of the Yale Institute for Global Health, said. "But it's not a known medical term."

As flu season sets in and the [Omicron variant](#) continues to surge, how worried should we be? We spoke to experts to better understand what it could mean to test positive for both infections. Here's what we learned.

### Why am I just hearing about this now?

People have been testing positive for both [Covid-19](#) and influenza, or flu, since the pandemic began.

From late January to late March 2020, researchers in China found [almost 100 cases](#) of patients testing positive for both illnesses in Wuhan. [The Atlantic](#) reported on a family in Queens that tested positive for both infections that February. And researchers in Barcelona published [a paper in May 2020](#) describing four people with both illnesses in the early months of the pandemic.

At the time, before vaccines were available, such dual infections, or what infectious disease experts call co-infections, appeared to be uncommon. A [spring 2020 study](#) in New York City, for instance, found that after about 1,200 Covid-19 patients were tested for other respiratory viruses, such as those causing influenza or the common cold, just 36, or less than 3 percent, had simultaneous infections. Last winter was also a notably subdued cold and flu season, with fewer people socializing and many wearing masks.

"The reason we haven't talked about it much is that it's not been clinically a challenge yet," said Dr. Jonathan D. Grein, an infectious disease physician and the director of hospital epidemiology at Cedars Sinai Medical Center. "We anticipate that as flu becomes more prevalent, we will see more co-infections." If it becomes a serious problem, experts expect to know a lot more about it in the coming months.

### Will co-infection make me twice as week?

A co-infection doesn't immediately mean that a patient will be doubly sick. A strong immune response may actually help the body fight off pathogens of all types, so one infection could stimulate some additional protection.

“An infection to one might help to aid your immune response to another,” Dr. Grein said, “because it’s activating that same immune response that’s going to be effective in fighting both.”

Still, scientists don’t know for sure yet, because so few people have tested positive for both Covid-19 and influenza. But judging from past trends, doctors are not overly worried.

“The majority of people who have influenza do just fine. The majority of people who have Covid do just fine, especially if they’re vaccinated,” said Dr. Andrew D. Badley, an infectious disease specialist and the chair of the SARS-CoV-2 Covid-19 Task Force at the Mayo Clinic. “It is hard to predict,” he continued, “but we expect that the majority of people who are co-infected with the two viruses will also do just fine.”

But as Dr. Badley and other experts pointed out, it’s generally better to have one infection rather than two. There’s more chance for complications with two infections, and it’s a bigger strain on the body.

“The human immune system can create antibodies for multiple pathogens simultaneously,” said Dr. Andrew Noymer, an epidemiologist and associate professor of population health and disease prevention at the University of California, Irvine, who studies influenza.

“But given the choice between being infected with one or two, I would always choose one,” he continued, adding, “I can’t tell you that two is so much worse than one, but the less viral threats, the better.”

### **Who is most susceptible?**

Dr. Omer, who is also a professor of infectious disease and epidemiology at Yale, identified two groups he thought could be most susceptible to co-infection.

First: unvaccinated adults. “Based on previous work on vaccinations, people who refuse one vaccine might refuse others as well,” he said. He said he expected there to be a “significant overlap between people who refuse both vaccines.”

Second: children, especially those under 5, who are too young to get vaccinated against Covid-19. Kids are also petri dishes, as any parent will tell you, and have lived through fewer cycles of the flu. So even if a child got a flu shot, Dr. Omer said, “their library of protection is narrow” against the many viral flu strains that can emerge each year.

### **What are the risks for the frail or elderly?**

Experts agreed that a patient who is already vulnerable to severe disease from one illness may suffer even more if doubly infected.

“It is probable that those people who would have had a bad outcome from flu will have a very bad outcome from the combination of flu and Covid,” Dr. Badley said.

### **What are the risks for children?**

Pediatricians were optimistic that “flurona” would not overwhelm most children. That’s because kids may be more likely than adults to get multiple infections at the same time.

“It’s not that surprising to most of the people who work in pediatrics,” said Dr. Frank Esper, a pediatric infectious disease physician at Cleveland Clinic Children’s Hospital. “We see co-infections all the time.”

“Co-infections with [coronavirus](#) are expected,” Dr. Esper continued. “I do not find it to be alarming.” His research team has [found that co-infections with a variety of respiratory viruses](#) are more common in children than adults. [Other earlier studies](#) likewise suggest that infection with

two concurrent viruses do not make a child sicker, he said.

Dr. Aaron M. Milstone, a professor of pediatric infectious disease at the Johns Hopkins University School of Medicine, also said he was cautiously optimistic. Just because a child has two viruses, he said, “doesn’t mean that the immune response will be twice as aggressive or generate twice as many symptoms.”

“Because the viruses have been co-circulating, it is very reassuring — especially for parents — that we have not seen a lot of children coming into the hospital with severe co-infections,” Dr. Milstone said. He added, “We’re not all of a sudden seeing more kids in the intensive care unit.”

### How can I prevent co-infection?

On this one, the medical advice remains consistent: Get vaccinated for both Covid and flu. And get vaccinated right now.

Both kids and adults can get both vaccines at the same time. Children ages 5 years and older are eligible for a Covid-19 vaccine, and children older than 6 months can get vaccinated against the flu.

“We have given multiple vaccines at the same time for decades,” Dr. Badley said, with no ill effects. “The side effects are the same” when administered together, “and the side effects for both vaccines are very, very low.”

In addition, experts agree you should wear masks and maintain [social distancing](#) measures when appropriate. Both flu and the coronavirus are airborne viruses, so limiting your exposure cuts down on your chances of getting infected.

“If you don’t want to get the coronavirus, and you don’t want to get flu,” Dr. Esper said, “the best thing you could do is: Do basically everything you did last year.”

## Covid-19 third wave hits India; here’s a quick look at state-wise curbs

On Thursday, India logged 2,47,417 new coronavirus infections, the highest in 236 days.

By: [Express Web Desk](#) | Chandigarh |  
Updated: January 13, 2022 10:34:15 pm



A health worker takes a swab sample of a traveler to test for COVID-19 at a train station in Mumbai. (AP/File)

With the [Omicron](#) variant fuelling the third wave of [Covid-19](#), various restrictions have been put in place nationwide to curb the spread of the virus.

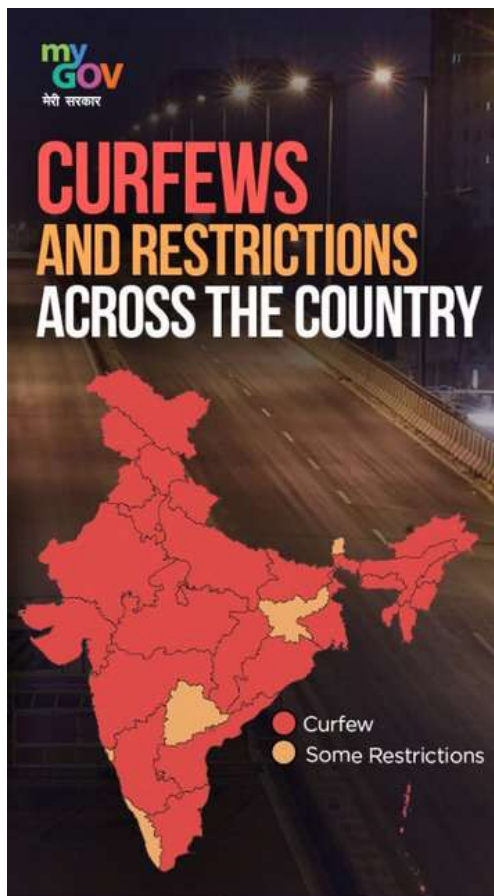
On Thursday, India logged 2,47,417 new [coronavirus](#) infections, the highest in 236 days, taking the total tally of Covid-19 cases to 3,63,17,927 which includes 5,488 cases of the Omicron variant, according to the Union Health Ministry data updated on Thursday.

The country saw a single day jump of 620 cases of the Omicron variant, the highest so far, taking the total tally of such cases to 5,488, out of which 2,162 people have recovered or migrated so far

The government has imposed night curfew in Andhra Pradesh, Haryana, Puducherry, Maharashtra and Madhya Pradesh from 11 pm to 5 am. People residing in Arunachal Pradesh,

Andaman and Nicobar Islands, and Odisha are expected to stay indoors between 9 pm to 5 am.

far as Meghalaya is concerned, the government has restricted people to step out between 9 pm



State/UTs	Curfews/Restrictions
Andhra Pradesh	11 pm to 5 am
Arunachal Pradesh	9 pm to 5 am
Assam	10 pm to 6 am
Bihar	10 pm to 5 am
Chattisgarh	9 pm to 6 am
Goa	Outdoor gathering limited to 100 people. Only 50% capacity for indoor functions upto 50 people
Gujarat	10 pm to 6 am
Haryana	11 pm to 5 am

State/UTs	Curfews/Restrictions
Himachal Pradesh	10 pm to 5 am
Jharkhand	Shops closed after 8 PM
Karnataka	Weekend curfews 10 pm Friday to 5 am Monday
Kerala	Public events limited to 50 people
Madhya Pradesh	11 pm to 5 am
Maharashtra	11 pm to 5 am
Manipur	9 pm to 4 am
Meghalaya	10 pm to 5 am
Mizoram	9 pm to 4 am
Nagaland	10 pm to 4 am
Odisha	9 pm to 5 am
Punjab	10 pm to 5 am
Rajasthan	11 pm to 5 am along with a weekend curfew
Sikkim	No gatherings; cinema and restaurants to work at 50% capacity
Tamil Nadu	10 pm to 5 am and lockdown on Sundays
Telangana	No public gathering allowed
Tripura	9 pm to 5 am
Uttar Pradesh	10 pm to 6 am
Uttarakhand	10 pm to 6 am
West Bengal	10 pm to 5 am
Andaman and Nicobar Islands	9 pm to 5 am
Chandigarh	10 pm to 5 am
Delhi	10 pm to 5 am along with weekend curfews
Jammu and Kashmir	9 pm to 6 am
Ladakh	10 pm to 5 am
Puducherry	11 pm to 5 am
Lakshadweep	9 pm to 6 am
Dadra and Nagar Haveli and Daman and Diu	Crowding at the beach prohibited. Schools closed

As on 12 Jan 2022

Here's a quick look at the state-wise curbs imposed to curb its spread

As far as Assam, Utter Pradesh, Uttarakhand, and Gujarat are concerned, curfew is between 10 pm to 6 am. Whereas, the night curfew is between 10 pm to 5 am in Bihar, Chandigarh, West Bengal, Himachal Pradesh, Meghalaya.

In Manipur and Mizoram, people are not expected to step out between 9 pm to 4 am. As

to 4 am. In Nagaland, the government has restricted people from stepping out between 10 pm to 4 am.

In Goa, the government has limited outdoor gatherings to 100 people, while allowing 50 percent capacity for indoor functions which is limited to 50 people. The government has stated that public gatherings in Kerala should not have more than 50 people.

People residing in Arunachal Pradesh, Tripura will need to stay indoors between 9 pm to 5 am.

In Jharkhand, the government has stated that shops must be closed after 5 pm.

In Karnataka, the government has imposed a weekend curfew from 10 pm on Friday to 5 am Monday, while no public gatherings are to be allowed in Telangana.

In Punjab and Ladakh, the government has imposed restrictions from 10 pm on Friday to 5 am Monday.

In Rajasthan, the government has restricted people from stepping out between 11 pm to 5 am and has also imposed a weekend curfew.

People living in Sikkim are advised not to gather while cinemas and restaurants have been advised to work at 50 percent capacity.

In Tamil, Nadu, the government has restricted people from stepping out between 10 pm to 5 am and has also imposed lockdown on Sundays.

People residing in Delhi will need to stay indoors between 10 pm to 5 am. The government has also imposed weekend curfews.

People residing in Jammu and Kashmir and Lakshadweep will need to stay indoors between 9 pm to 6 am.

## **The Indian EXPRESS**

### **‘Covishield effective against Omicron after two shots of same or other vaccines’**

**The vaccine, sold as Covishield in India and Vaxzevria elsewhere, also enhanced the body’s immune response to the virus’s Alpha, Beta, Delta and Gamma variants also, AstraZeneca added.**

By: [Express News Service](#) | Pune |  
January 13, 2022 7:29:42 pm



A medic shows a Covishield vaccine vial. (Express photo by Amit Mehra)

Preliminary analyses of ongoing clinical trials showed that a third dose of the [Oxford-AstraZeneca vaccine](#) increased the antibody response to the [coronavirus’s Omicron variant](#) after two initial doses of the same vaccine, or after mRNA or inactivated jabs, the vaccine’s manufacturers said on Thursday.

The vaccine, sold as Covishield in India and Vaxzevria elsewhere, also enhanced the body’s immune response to the virus’s Alpha, Beta, Delta and Gamma variants also, AstraZeneca added.

The results were observed among people previously vaccinated with either the AstraZeneca jab or an mRNA. A separate Phase IV trial reported in a preprint with the journal Lancet showed that a third dose of the vaccine substantially increased antibody levels in people previously jabbed with CoronaVac, an inactivated vaccine made by the Chinese Sinovac Biotech pharma.

The British-Swedish pharmaceuticals major said these data added to the growing body of evidence supporting the efficacy of its vaccine as a third dose booster irrespective of the primary vaccination schedules tested. “These data show that Vaxzevria has an important role to play as a third dose booster, including when used after other vaccines. Given the ongoing urgency of the pandemic and Vaxzevria’s increased immune response to the [Omicron](#) variant, we will continue to progress regulatory submissions around the world for its use as a third dose booster,” said Sir Mene Pangalos, executive vice-president of BioPharmaceuticals R&D at AstraZeneca.

Professor Sir Andrew J Pollard, director of the University of Oxford’s Oxford Vaccine Group which developed the vaccine, said the jab was suitable as an option for countries considering booster programmes. “These important studies show that a third dose of Vaxzevria after two

initial doses of the same vaccine, or after mRNA or inactivated vaccines, strongly boosts immunity against Covid-19.

## The Indian EXPRESS

### Why some workers are getting all the Covid tests they need

Written by Emma Goldberg, Lauren Hirsch and David McCabe The latest COVID-19 wave has left millions of Americans scrambling for tests, braving long lines in the cold at pop-up sites or searching furiously online for kits to use at home. But for a select group of employees at some of the country's largest companies, tests [...]

By: [New York Times](#) |  
January 13, 2022 2:19:49 pm

Written by Emma Goldberg, Lauren Hirsch and David McCabe

The latest [COVID-19](#) wave has left millions of Americans scrambling for tests, braving long lines in the cold at pop-up sites or searching furiously online for kits to use at home. But for a select group of employees at some of the country's largest companies, tests are free and often readily available.



FILE — A CVS store posts a sign alerting customers they are out of at-home COVID tests in Atlanta on Dec. 31, 2021. (Nicole Craine/New York Times)

Without an adequate federal system for developing and distributing rapid tests, companies have put their own testing services in place.

[Google](#) will send full-time employees in the United States free at-home tests that deliver results within minutes and retail for more than \$70 each. BlackRock, an investment firm that manages nearly \$10 trillion in assets, offers telehealth supervision as employees self-administer rapid tests for international travel. At JPMorgan Chase, bankers, including those at its retail sites, can order at-home rapid tests from an internal company site.

Some companies are using the tests to call their staff back to the office. For others, at-home COVID testing has become the newest wellness benefit, a perk to keep employees healthy and working — even from their couches — while providing peace of mind.

The testing available to a small number of white-collar professionals underscores the difference between their pandemic experience and that of other Americans, putting them at an advantage over many, including workers at small businesses without the means to procure testing kits for their staffs. Like personal protective equipment and vaccines, tests have become the latest example of how a tool to battle the pandemic can exacerbate social and economic divides.

"We're the epicenter of the epicenter and I can't get test kits anywhere," said Thomas Grech, president of the Queens Chamber of Commerce, which has roughly 1,400 members that employ about 150,000 workers in the borough.

Some employers secured contracts with companies that supply or administer tests in the earlier months of the pandemic, before the [omicron](#) variant unexpectedly drove up demand. Following the advice of experts, some

are incorporating testing as part of their return-to-office protocols.

Belle Haven Investments, an asset management firm in Westchester County in New York with only 40 employees, has been storing tests in a supply closet.

"We're trying to stockpile them," said Laura Chapman, chief operating officer of the firm, which has not mandated a return to the office, though many workers have voluntarily come back. She added that the company was ordering only as many tests as employees were demanding, and that they were facing shortages: "Those tests, man, those home tests are so hard to get."

In the United States, the federal government has moved more slowly than other countries to authorize rapid antigen tests for everyday use. Britain, for example, was quicker to approve rapid tests as a public health tool, leading to faster production. And unlike Washington's approach to vaccines, the development of rapid tests has until recently been mostly financed by private companies like Abbott Laboratories. The result is a nationwide shortage of tests.

Americans who cannot get tests are often left to wait in lines that can run as long as three hours. Or they can try to buy at-home tests online or in stores. Walgreens and CVS last month announced limits on the purchase of at-home rapid test kits at stores.

The Biden administration has stepped up its efforts to make tests more broadly available and affordable, requiring insurer reimbursement for tests, invoking the Defense Production Act and announcing plans to ship 500 million tests to Americans. The United States is expected to have 1 billion rapid tests by the end of this year, or three tests per person, according to Tinglong Dai, a professor at Johns Hopkins Carey Business School. The country is now reporting more than 2

million tests a day on average, up from about 500,000 last summer and higher than at any previous point in the pandemic.

Joseph Allen, an associate professor at the Harvard T.H. Chan School of Public Health, said earlier coordination on the national level could have "flooded the market" with tests and made them more available for everyone.

"It doesn't surprise me that many organizations who were recognizing they need these tests to stay in business were buying them," Allen said.

But with testing kits scarce, and sorely needed by people who cannot work remotely, some public health experts question the current distribution of resources.

"There's a few better targets than at-home white-collar workers," said Dr. Benjamin Mazer, a pathologist in Connecticut specializing in laboratory medicine.

BlackRock, which has more than 7,600 U.S. employees and has extended its work-from-home flexibility through Jan. 28, offers its staff up to one at-home PCR testing kit each week, up to six monthly at-home antigen kits for employees or their family members exposed to COVID, and telehealth supervision for self-administered rapid tests needed for international travel, an option begun over the December holidays.

At Morgan Stanley, bankers can receive up to four free BinaxNOW tests, which cost about \$40 in stores, every two weeks through a third party, though the shortage of tests has delayed shipment arrival. At JPMorgan, where corporate employees said they were told last month that they could temporarily work from home because of the fast-spreading omicron variant, bankers can order rapid tests.

TIAA, an investment firm with 12,000 workers in the United States, began offering free at-home testing to its staff in December 2020. The majority



of its employees have worked from home since the start of the pandemic, though roughly 5% had been coming into the office last year. There is no limit on the number of tests employees can order, for themselves as well as their family, according to a spokesperson, Jessica Scott.

"The goal of offering that is providing comfort to our employees so they don't have to unnecessarily worry or be burdened by having to find a test outside the home," said Sean Woodroffe, the firm's head of human resources.

TIAA is considering expanding its testing options, by exploring a partnership with the company Detect, which makes at-home molecular tests. "We're not hoarding tests," Woodroffe added. "We have tests to fulfill our demand."

Google's full-time employees in the United States have access to multiple types of [coronavirus](#) tests they can take at home, the company said. Since last year, employees have been able to request PCR tests provided by a company called BiolQ. Employees collect a nasal swab at home, and it is processed in the company's lab.

Google also distributes to employees who want one a small testing device that produces results in minutes.

To perform the rapid molecular test, employees insert a cartridge into the reader, swab their nose and place the swab in the cartridge for results sent by phone. The test is made by Cue Health, a company that provided testing for the NBA bubble.

Google signed a deal with Cue Health in April to provide its employees with the test kits, according to a securities filing. The devices did not become available to the public for direct purchase until November. Cue Health also had a prior contract with the federal government and assisted it in distributing the tests across 20 states.

Consumers can now buy one of the readers directly from Cue Health for \$250, and a 10-pack of the test cartridges retails for \$712. Google gives employees 10 tests with the Cue Health reader, and will cover the cost of up to 20 more test cartridges per employee each month. (Cue Health said that it offered memberships for consumers, which include discounts on tests and the reader.)

Google uses many temporary workers, vendors and contractors who do not get access to the Cue Health tests, according to documents reviewed by The New York Times. A spokeswoman for Google said temporary workers and vendors may use the at-home PCR tests performed by BiolQ if they were coming into Google's U.S. offices.

Other technology companies have taken more limited approaches to testing. [Microsoft](#) offers free rapid antigen home tests to employees on its campus, said a spokesperson, Frank Shaw. Meta, [Facebook](#)'s parent company, provides testing at around 10 of its offices for employees who have returned for in-person work, said Tracy Clayton, a press officer for the company.

But for many businesses, and their workers, tests are far harder to come by.

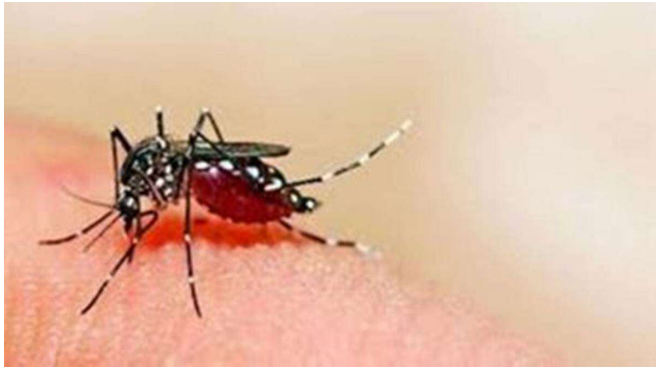
Jesus Caicedo-Diaz, who owns Skal, a restaurant in Brooklyn, said his employees were struggling to get COVID test results before the business opened at 10 a.m., with testing lines often running hours long by early morning.



## Dengue, malaria, and Covid-19: How to avert co-infection

By: [Lifestyle Desk](#) | New Delhi |  
June 20, 2021 10:50:16 am

**Monsoon increases the risk of transmission of tropical, vector-borne diseases like malaria and dengue. As we continue to live amid a pandemic, the risk has compounded with the infections caused by Covid-19 virus**



The onset of monsoon increases the risk of transmission of tropical, vector-borne diseases like malaria and [dengue](#). As we continue to live amid a pandemic, the risk has compounded with the infections caused by [Covid-19](#) virus since many symptoms of dengue, malaria, and Covid-19 overlap, which can make treatment difficult and outcome dismal. "Preventing simultaneous infection of Covid-19 and malaria or/and dengue becomes a critical health intervention. Preventing co-infection will help to segregate and treat Covid patients more expeditiously while reducing chances of wrong treatment that may cause morbidity or death," said Dr Maheshkumar M Lakhe, Consultant – Internal Medicine and Infectious Disease, Columbia Asia Hospital, Pune

"Last year," he continued, "Delhi recorded a rise of 24 per cent cases of [dengue](#), malaria, and chikungunya cases in a span of a week in August, taking the toll to 131 by September, while Gurgaon witnessed 36 cases of malaria and dengue by mid-October. Though Pune did not witness a single case between March and August last year, any complacency can exacerbate the challenging COVID situation in the city," he said.

## **Common symptoms of dengue, malaria, and Covid-19**

It is very difficult to differentiate between dengue fever, malaria, and [Covid-19](#) since all three diseases share similar laboratory and clinical characteristics.

*Dengue:* Also called bone-breaking fever, dengue is a viral infectious disease caused by any of the four related dengue viruses – DEN-1, DEN-2, DEN-3, and DEN-4. The common symptoms of dengue include high fever with severe headache, muscle and joint pain coupled with nausea and vomiting and diarrhea.

*Malaria:* The life-threatening disease is caused by the parasite Plasmodium, which is transmitted to humans through an infected anopheles mosquito. Some common symptoms include fever with shivering, headaches, fever, and vomiting, and occasional seizures, sweats, followed by a return to normal with fatigue.

*Coronavirus:* The disease spreads from person-to-person through droplets emanating from an infected person when they cough, sneeze or talk without a guard or a mask. Some established symptoms are fever, dry cough aches and pains with tiredness, sore throat with headache, diarrhea, difficulty breathing or shortness of breath.

"Both malaria and dengue have a few common symptoms as both start with headaches and generalised weakness, symptoms seen in a Covid-19 infected person as well. Covid symptoms, like skin rash and fever, can be found in dengue as well. The initial clinical symptoms like fever, myalgia and headache are commonly seen in both dengue and [Covid-19](#) infected patients. However, additional symptoms pertaining to the respiratory system like cough, loss of smell or taste, or sore throat may encourage further investigations for Covid-19. This coinfection of dengue, malaria and

Covid-19 poses a big challenge for the precise and right diagnosis of these viral diseases as there have been reports of misdiagnosis due to false-positive results," expressed Dr Lakhe.

### Measures to avert a coinfection

Undoubtedly, the co-infection and co-occurrence of dengue, malaria and COVID-19 have created a great burden on the medical and public health agencies, raising concerns over limited resources at a time when the healthcare infrastructure is under tremendous pressure due to the pandemic. "Also, it is a challenge for diagnostic staff to come out with correct laboratory diagnosis of shared clinical [symptoms](#) shown by infected individuals. The main pillars to control the two major arthropod-borne infections in tropical areas have been preventive measures such as vector control, protective measures, and surveillance. But the pandemic has posed a challenge in terms of restricted availability and movement of human resources. This has adversely impacted the much-needed vector management activities. Keeping the situation in mind, the roadmap for the district and state authorities has been structured to ensure that scheduled activities to curb the outbreak of malaria and dengue are not hampered. However, the paucity of manpower on the ground remains a cause of worry," he said.

In such a situation, the need of the hour is an affordable and rapid test that could precisely distinguish between [dengue](#), [malaria](#), SARS-COVID-19, he suggested. To avoid rising numbers of dengue and malaria cases at a time when the COVID situation in India remains volatile, it is necessary that the hospitals develop sufficient infrastructure to treat patients with co-infection. It is also important that patients must be diagnosed for all the infections since clinical diagnosis is not easy due to overlapping symptoms.

"It can be assumed that the cases of co-infection of Covid-19, dengue and malaria would peak during monsoon season. Hence, the government and the health agencies must be well-prepared with strong measures like effective mosquito vector control strategies and sufficient hospital and diagnostic facilities. At the same time, it is important that people follow COVID-appropriate behaviour as well as the general guideline for malaria and dengue prevention including, but not limited to preventing the accumulation of freshwater, wearing clothes covering arms and legs, using mosquito nets and repellents, and screen on windows and doors, and cover water containers tightly or use chemical larvicide to prevent breeding of mosquitoes," he said.



## Are you pregnant amid ongoing Omicron wave? Tips to follow

Getting jabbed for Covid-19 can reduce the severity of infection in pregnant women. Here are other tips that pregnant women should follow amid pandemic.



*A person infected with Omicron showcases symptoms such as sore throat, cough, body pain, fever, runny nose, sneezing, and fatigue.(File photo)*

Updated on Jan 17, 2022 11:10 AM IST

[Omicron](#) is highly contagious but at the same time it's causing mostly mild symptoms in people. Vulnerable population including [pregnant women](#), however, remains at a greater risk of severity and death from Covid-19.

A person infected with Omicron showcases symptoms such as sore throat, cough, body pain, fever, runny nose, sneezing, and fatigue. Nausea, vomiting and loss of appetite are also among the [symptoms of this new variant](#).

Pregnant women are at risk of several complications from [Covid-19](#) and cytokine storm could have a damaging effect on foetal development.

Getting jabbed for Covid-19 can reduce the severity of infection in pregnant women. It can also lower the risk of complications arising from Coronavirus, says expert.

"Covid-19 vaccination is safe for pregnant women and their babies too. Vaccination can allow the mother to build antibodies that can even offer protection to the babies. Various studies suggest that the vaccine doesn't lead to any complications during pregnancy or impact the baby, fertility, or change menstruation. Pregnant ladies should not skip vaccination at all," says Dr Pratima Thamke, Consultant Obstetrician & Gynaecologist, Motherhood Hospital, Kharghar.

Here are other guidelines by Dr Thamke that pregnant women must following amid pandemic

\* **Eat right, get a good night's sleep:** Pregnancy can suppress one's immunity so be careful as you may suffer from various allergies and infections along with Covid. Try to boost immunity by eating nutritious food. Avoid eating junk, spicy, oily, processed, and canned food. Don't forget to rest enough and get a good night's sleep.

\* **Stay active, do breathing exercises:** Pregnant women should exercise at home to ward off risk of Covid-19. One can do yoga and meditation to alleviate stress and anxiety due to Covid. It is also advisable to do breathing exercises as suggested by the doctor to improve functioning of your lungs.

\* **Don't allow visitors at home:** Avoid being around sick people. Pregnant women should avoid social gatherings and crowded places to stay safe.

\* **If you are pregnant and sick with Covid** then quarantine yourself and do as your doctor says. Monitor your temperature and oxygen levels from time to time. Avoid coming in contact with anyone. Your caregiver should be fully vaccinated.

\* **Do not touch your face or mouth** after touching the potentially contaminated surfaces like furniture, door handles, or knobs.

\* **Wear a mask**, maintain social distancing and properly wash or sanitize the hands.

\* **Take online consultations:** Instead of venturing out for check-ups you can opt for online consultations.

\* **Stock up all your essentials** like medicines or groceries just to be on the safer side.



## India's vaccine for Omicron could be ready in a month or two: Source

India's Gennova Biopharmaceuticals is working on an Omicron-specific Covid-19 vaccine candidate that could be ready in a month or two,

a person with direct knowledge of the matter told Reuters.



Pfizer Inc said last week a redesigned COVID-19 vaccine that specifically targets the Omicron coronavirus variant could be ready to launch by March. (REUTERS/File)

Updated on Jan 17, 2022 10:21 AM IST

India's Genova Biopharmaceuticals is working on an [Omicron-specific COVID-19 vaccine](#) candidate that could be ready in a month or two, a person with direct knowledge of the matter told Reuters.

The source, who did not want to be named as the information was private, said the product might need a small trial in India before it could be rolled out as a booster or standalone vaccine.

A representative for Genova, a unit of drugmaker Emcure Pharmaceuticals that does business in some 70 countries, did not immediately respond to a request for comment.

Pfizer Inc said last week a redesigned COVID-19 vaccine that specifically targets the Omicron coronavirus variant could be ready to launch by March.

The source said Genova on Friday separately submitted to India's drug regulator phase 2 trial data for its original mRNA vaccine candidate. The government said last year that product was found to be "safe, tolerable, and immunogenic" in the participants of an initial study.

If given emergency-use approval, this would be the country's first mRNA COVID-19 vaccine like the ones developed by Pfizer and Moderna.



## Omicron: These simple habits will help you stay healthy

While Covid-related restrictions can play a havoc with one's physical and mental health, one can make appropriate lifestyle changes to sail through these unprecedented times.



*Developing a routine where you give priority to your mental health and happiness by staying connected to your loved ones apart from staying active is the way to go forward. (Pixabay)*

Published on Jan 17, 2022 09:58 AM IST

Amid the [raging pandemic](#) and fear of getting infected by [Omicron](#), a highly-infectious strain of Coronavirus, following [Covid-19](#) appropriate behaviour like maintaining social distancing, masking up, good hand hygiene and not getting out of the house unless it's urgent is the need of the hour.

While Covid-related restrictions can play a havoc with one's physical and mental health, one can make appropriate lifestyle changes to

sail through these unprecedented times. Developing a routine where you give priority to your mental health and happiness by staying connected to your loved ones apart from staying active is the way to go forward.

Studies have suggested that people who go through extreme stress and anxiety during pandemic have an increased risk of getting Covid-19. Eliminating stress from life with the help of holistic health practices like yoga and meditation will not only keep your immunity in top shape but also make you feel happier and more resilient.

"Mindful thinking will allow you to get rid of the negative feelings. When it is impossible for you to venture out of the house, and meet your family and friends, just stay connected with them via a phone call or a video call. Spend some quality time with your family members and this will also strengthen the bond. Also, you can watch your favourite movies, solve puzzles, and learn new skills. Remember, self-care is important," says Dr. Tushar Prasad, Consultant Emergency Medicine, Wockhardt Hospitals, Mira Road.

While one cannot step out of the house for gymming, going for a walk or doing indoor exercises will make sure you are leading an active lifestyle.

"You can do aerobics, stretching, yoga, weight training, or Zumba at home. Try to exercise at least 5 days a week for around half-an-hour. Doing so will also allow you to maintain an optimum weight," says the expert.

Your daily diet can affect your overall health. The right food loaded with nutrients can help prevent infections and ward off risk of chronic diseases.

"Your daily diet should be able to provide you with all the important nutrients. Opt for fresh fruits, vegetables, whole grains, legumes, pulses, and lentils. Do not have caffeine, alcohol, or smoke. Drink enough water, and avoid processed, junk,

oily and canned food that can cause weight gain. Ditch those sweets, colas, and sodas," says Dr Prasad.



## 'Deltacron is a result of...': WHO on new Covid strain that combines Delta and Omicron

Updated: 13 Jan 2022, 05:01 PM IST

The World Health Organization (WHO) on Thursday said that the phrase, "[Deltacron](#)", which suggests that Delta and Omicron have combined, is not really a thing.

"In fact, what we think that it's a result of contamination that has happened during the sequencing process," WHO technical lead of Covid-19 Dr Maria Van Kerkhove said.

She, however, clarified saying that it's possible for an individual to be infected with different variants of SARS-CoV-2. The WHO technical lead also stated that there have been examples of coinfection, in which people were infected with both influenza and Covid-19 "throughout this pandemic."

"There was a recent systematic review that looked at the prevalence of this (coinfection with Covid-19 and influenza). They also looked at whether or not people had more severe disease," Kerkhove said, adding that the review discovered that coinfection didn't increase the severity of the disease.

Few days back, unverified reports emerged of a "flurona" or "flurone" virus circulating – a combination of the flu and Covid-19 – which the WHO had dismissed.

"Let's not use words like Deltacron, flurona or flurone. Please," Kerkhove tweeted. "These words imply combination of viruses/variants and this is not happening," she said.

### 'Deltacron likely result of lab error'

Experts have said that an alleged hybrid Covid-19 mutation dubbed "Deltacron" reportedly discovered in a Cyprus lab is most likely the result of a lab contamination, and not a new worrying variant.

Cypriot media reported the discovery Saturday, describing it as having "the genetic background of the Delta variant along with some of the mutations of Omicron".

While it is possible for coronaviruses to genetically combine, it is rare, and scientists analysing the discovery of so-called "Deltacron" say it is unlikely.

"The Cypriot 'Deltacron' sequences reported by several large media outlets look to be quite clearly contamination," Tom Peacock, a virologist with the infectious diseases department at Imperial College London, tweeted over the weekend.

Jeffrey Barrett, the head of the Covid-19 Genomics Initiative at Britain's Wellcome Sanger Institute, said the alleged mutations are located on a part of the genome that is vulnerable to error in certain sequencing procedures.

"This is almost certainly not a biological recombinant of the Delta and Omicron lineages," he said Monday.

Scientists are eager to battle a deluge of disinformation about coronavirus, much of it circulating on social media.

**Continued from page no.1**

## Is Deltacron a New Covid-19 Variant? WHO Clears Air on Infection with Delta and Omicron

..... The term made headlines this week after a researcher, Leondios Kostrikis, in Cyprus allegedly discovered a strain that combines both the variants. Soon after, a report in Bloomberg claimed that 25 cases of Deltacron were detected in Cyprus.

Kostrikis, who is also the head of its Laboratory of Biotechnology and Molecular Virology, was quoted by Bloomberg as saying that they had found a strain that displays "Omicron-like genetic signatures within the Delta genomes" upon analysis of samples from 25 patients.

"There are currently Omicron and Delta co-infections and we found this strain that is a combination of these two," Kostrikis said in an interview with a TV channel, adding that they had named the strain "deltacron"

During a discussion, Dr Maria Van Kerkhove, WHO technical lead of Covid-19, said that Deltacron might be a result of "contamination" during the sequencing process. She said the instance of individuals infected with both influenza and Covid-19 "throughout this pandemic" are in plenty, Hindustan Times reported.

"There was a recent systematic review that looked at the prevalence of this (coinfection with Covid-19 and influenza). They also looked at whether or not people had more severe disease and the review discovered that coinfection didn't increase the severity of the disease," she said.

Kostrikis had earlier said that his team had uploaded the sequences of the 25 deltacron to

GISAID, the international database that tracks changes in the virus, on January 7.

As reports about deltacron's emergence went viral, several scientists and health experts rushed to shoot down the speculation about the rise of another variant, saying that its discovery was more likely a result of lab contamination.

Imperial College London virologist Tom Peacock said in a series of posts on Twitter that "The Cypriot 'Deltacron' sequences reported by several large media outlets look to be quite clearly contamination", noting that it does not demonstrate key aspects that would point to the appearance of a new variant.

Another infectious diseases specialist and a member of WHO's Covid-19 Technical Team, Dr Krutika Kuppalli was emphatic in her rejection of deltacron, saying, it "is not real and is likely due to sequencing artifact (lab contamination of #Omicron sequence fragments in a #Delta specimen)". As the world contends with new coinages that suggest the rise of mutations and transformations of the virus, she urged that "let's not merge of names of infectious diseases and leave it to celebrity couples".

A similar tone was struck by Dr Eric Topol, the founder of the Scripps Research Translational Institute in the US, who [tweeted](#) that deltacron "'deltacron' is a scariant" and that it "isn't even a real variant but scares a lot of people, unnecessarily".

Another expert, Dr Boghuma Kabisen Titanji, too, urged caution in jumping to conclusions about the rise of a new variant, saying on Twitter that one should "interpret with caution" the reports from Cyprus as "the information currently available is pointing to contamination of a sample as opposed to true recombination of #delta and #omicron variants".

Although terms like "delmicron" and "flurona" or "florona" have done the rounds amid the rise of

the Omicron variant, experts have been at pains to dispel rumour mongering around the pandemic. "Delmicron" was used to suggest a surge fuelled by the Delta and Omicron variants while "florona" referred to the discovery of flu and Covid-19 in a single patient, a situation that experts have anticipated.

But Dr Kostrikis, who announced deltacron to the world, countered the experts who have dismissed it as a result of lab contamination by saying that "findings refute the undocumented statements that deltacron is a result of a technical error". Reports say he told Bloomberg in an emailed statement that the cases he has identified "indicate an evolutionary pressure to an ancestral strain to acquire these mutations and not a result of a single recombination event".

He pointed to deltacron's discovery in hospitalised patients as evidence that can serve to rule out the contamination theory. He also said that at least one sequence from Israel submitted to a global database shows genetic characteristics of deltacron.

## ThePrint

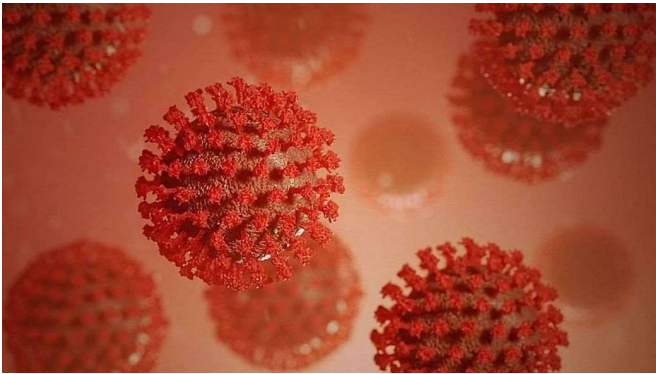
### **'Deltacron is non-variant of no concern': Why experts aren't worried about Delta-Omicron 'hybrid'**

**Cypriot researchers claimed 'variant' contained mutations that appeared to be a combination of Delta and Omicron, but many virologists globally refute 'deltacron' being a variant.**

[SANDHYA RAMESH](#)

12 January, 2022 07:30 am IST





Coronavirus | Representational Image | Pixabay

**Bengaluru:** There has been a [flurry of news articles](#) about a supposed new SARS-CoV-2 variant, of the name B.1.640.2 or 'Deltacron', being reported by a team of researchers in Cyprus. The sequences, which were first reported as early as November last year, have gained renewed attention of late, primarily because of fresh writing on it.

While Cypriot researchers had claimed that the variant contained mutations that appeared to be a combination of Delta and Omicron variants, many virologists globally refute 'deltacron' being a variant, stating that it is most likely the result of laboratory contamination.

Some virologists have even taken to Twitter to explain the science behind what might have happened in the Cyprus lab, and how the limited number of sequences available indicates contamination.

A Twitter post Tuesday claimed the Cypriot researcher who had first uploaded the sequences on a collaborative database used by the World Health Organization (WHO), GISAID, has asked them to be removed from the platform.

### **Contaminated and amplified**

Laboratory contamination can occur at any time in any facility owing to mixing of fluids at a microscopic level when sequencing viruses. Contamination of a sequence occurs if it

contains fragments from a different sequence, which takes place commonly in labs. It can occur through residues from previous PCR amplifications carried over into the current batch of samples, or when samples are not carefully handled.

Amplicons are fragments of genome sequences that are used as originals to make copies in amplification processes like PCR. Primers are short, single-strand segments of DNA that attach to regions of the DNA segment that needs to be amplified in these processes. The region called Amplicon 72 is not easily picked up by some primers that are used in PCR processes.

This has previously [caused](#) confusions where some mutations in Delta were also not detected by some primers, but were by others.

As a result, when there is even a minor change introduced by contamination during sequencing, which causes it to then get picked up, the changes or contamination get exponentially amplified in the regular PCR process. The resulting sequence makes the original look like a hybrid sequence with characteristics from two different variants.

Phylogenetic trees are visual representations of evolution of the virus, and as the virus branches off into a new variant, subsequent sequences uploaded of the variant fall within the branch, based on characteristics and mutations. With the supposed 'deltacron' variant, the sequences are found randomly across multiple trees instead of together like with every other variant.

Furthermore, virologists have also noted that the supposed variant pre-dates Omicron. Its sequences were first uploaded to GISAID back in early November. The first Omicron sequence appeared three weeks later.

But since November, until today, there are a total of only 24 sequences of the B.1.640.2 ('deltacron'), while there are over 120,000

sequences of the Omicron variant. As a result, experts say that there is no risk from B.1.640.2 yet, as it doesn't appear to be spreading.

### **Cyprus scientist asks sequences to be removed from GISAID**

The Cypriot scientist Leonidos Kostrikis — who had been the first to upload the sequences — and his team have meanwhile reportedly asked GISAID to remove the sequences from their database.

Kostrikis had previously defended his findings, [telling Bloomberg](#) in an interview published Sunday that the cases identified “indicate an evolutionary pressure to an ancestral strain to acquire these mutations and not a result of a single recombination event”.

He had claimed the sequences were also reported from multiple countries including France and Israel, which refute that it's a technical error.

Detailed analysis of the sequences, in the absence of additional data is, however, indicative of deltacron just being a contamination and not a variant by itself. At the moment, health experts and virologists are not worried about B.1.640.2.

WHO's Covid technical lead, Maria Van Kerkhove, too, had said Monday that deltacron is likely the result of contamination during sequencing and asked to avoid portmanteaus when commenting on Covid co-infections.

Written by [Katharine Lang](#) on January 14, 2022 — [Fact checked](#) by Ferdinand Lali, Ph.D

Social media was recently lively with news that scientists in Cyprus claimed to have found a new hybrid variant of SARS-CoV-2. Named Deltacron, it appears to be a combination of the Delta and Omicron variants. However, other experts have questioned whether this is truly a new variant, suggesting the finding may be due to contamination during laboratory testing. Medical News Today looks at the arguments on both sides.

On January 7, scientists in Cyprus [reported](#) that they had discovered a new variant of SARS-CoV-2. The variant, named Deltacron, is said to be a hybrid of Delta and Omicron.

The scientists are led by [Dr. Leondios Kostrikis](#), a professor of Biological Sciences at the University of Cyprus.

Dr. Kostrikis reported that the variant has a Delta-like [genomeTrusted Source](#) with Omicron characteristics. The team stated that Deltacron had been identified in 25 individuals — some hospitalized and some in the community.

### **Claims of lab contamination**

The identification of Deltacron led to widespread news coverage and much debate on social media, but experts have questioned the findings.

[Dr. Jeffrey Barrett](#), Director of the COVID-19 Genomics Initiative at the Wellcome Sanger Institute in the United Kingdom, believes the findings are due to a lab error.

**“This is almost certainly not a biological recombinant of the Delta and Omicron lineages,”** he says. **“The apparent Omicron mutations are located precisely and exclusively in a section of the sequence encoding the spike gene (amino acids 51 to 143) affected by a**

**MEDICALNEWS**TODAY

**‘Deltacron: New variant or laboratory error?’**

## technological artifact in certain sequencing procedures.”

Writing on Twitter, [Dr. Tom Peacock](#), a virologist at Imperial College London in the U.K, also dismissed the findings, saying that “[t]he Cypriot ‘Deltacron’ sequences reported by several large media outlets look to be quite clearly contamination.”

In a separate tweet, he nevertheless clarified that this was not due to poor lab practice, stating that it “happens to every sequencing lab occasionally.”

The evolutionary evidence appears to back up their comments. Several experts have [stated](#) that if Deltacron was truly a new recombinant variant, samples would cluster on the same branch of SARS-CoV-2’s [phylogenetic tree](#)[Trusted Source](#).

However, Deltacron appears [randomly](#) on several branches, which experts say is a sure sign of contamination.

## Findings defended

However, Dr. Kostrikis [defended](#) his findings. He asserted that since Deltacron infection rates were higher in hospitalized patients than in nonhospitalized individuals, the contamination hypothesis was less likely.

**In addition, the samples identified as Deltacron were processed in multiple sequencing procedures in more than one country, lessening the likelihood of lab errors, he noted.**

The Cyprus team has since reported another 52 cases of Deltacron to the [Cyprus Mail](#). The Cyprus health minister also defended the findings, saying that the groundbreaking research made him “proud of our scientists.”

## Call for more evidence

While many experts have dismissed the claims that Deltacron is a new hybrid variant, others are willing to wait for more evidence.

Speaking to *Medical News Today*, [Dr. William Schaffner](#), a professor of infectious diseases at the Vanderbilt University Medical Center, Nashville, TN, commented that “[f]urther local epidemiological investigation in Cyprus is warranted to sort this out. The world certainly is watching.”

Whether that evidence will be forthcoming from Cyprus, or elsewhere, is open to question. *MNT* contacted Dr. Kostrikis but was still awaiting a response when this article went to press.

Meanwhile, the Cypriot health authorities have stated that the new variant is not one of concern. So, even if Deltacron does exist, what little evidence there is so far suggests we should not be too worried about it.

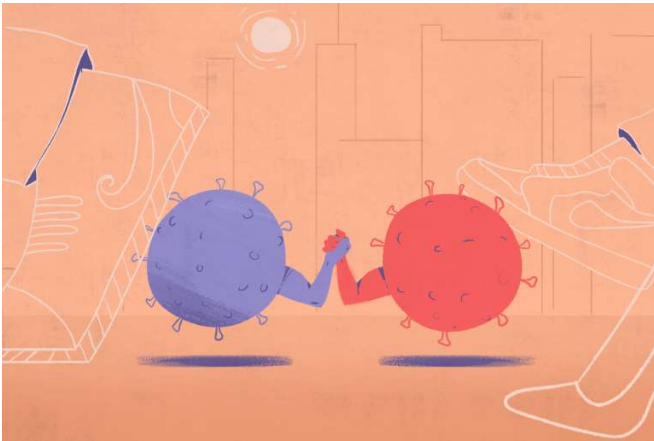


## Deltacron’: Should we worry about new COVID-19 variants merging?

*Experts say two variants can cross over to form a recombinant version of both variants. Plus, getting vaccinated against both COVID-19 and influenza is the best way to protect yourself from ‘Flurona’.*

7 Jan 2022

During the past week, my inbox has been flooded with messages telling me a new COVID-19 variant had been discovered in Cyprus. Dubbed “Deltacron”, it was said to be responsible for a series of hospitalisations in the country.



[Muaz Kory/Al Jazeera]

I groaned at the thought of a new variant and one that was said to be a combination of the Delta and Omicron variants sounded ominous. So, I decided to do some digging.

I discovered that the news had first emerged on January 7, when scientists at the University of Cyprus Laboratory of Biotechnology and Molecular Virology, led by Dr Leondios Kostrikis, claimed they had encountered a new variant of the SARS-COV-2 virus. It had, they said, already infected at least 25 people. According to Dr Kostrikis, the variant contained Omicron-like genetic signatures within Delta genomes – hence the name “Deltacron”.

Cyprus's health minister, Michalis Hadjipandelas, was quick to point out that the new variant was not something to be concerned about at that point and that the sequence had been sent to GISAID, an open access database that tracks developments in the coronavirus.

The discovery of the new variant started trending on Twitter, but experts immediately advised caution. The World Health Organization's (WHO) COVID-19 expert, Dr Krutika Kuppalli, explained on Twitter that there was no such thing as “Deltacron” and that this was likely a “lab contamination of Omicron fragments in a Delta specimen”.

Other scientists soon chimed in, and the overriding opinion was that this was not a new variant but most likely a case of laboratory contamination. The mutations did not appear to have a recombinant pattern, they explained, suggesting that Omicron and Delta had not merged their genetic material, despite both circulating widely.

Dr Tom Peacock, a virologist at Imperial College London, said some sort of contamination in the lab had likely led to an error in the interpretation of the genetic sequence and explained that such errors were not uncommon in laboratories.

But while “Deltacron” may not be here, it is, theoretically, possible for two coronavirus variants that are circulating at the same time to cross over and form a recombinant version of both variants. If someone is infected with both variants simultaneously, then there is a small chance that both can infect a human cell at the same time. This increases the chances of their genetic material – RNA – becoming mixed as they begin to multiply and divide inside the cells. In such a case, the new recombinant variant would include genetic material from both variants.

Thankfully, this does not appear to have happened yet, but it is not impossible. The best way to reduce the chances of variants merging to form recombinant variants is to drive down community infection numbers. The focus has to go beyond the scope of vaccines only, although vaccinating the world is incredibly important other measures are needed. A key step would be to ensure there is clean air indoors through filtration and purification measures. It will reduce the number of virus particles in the air and decrease the chances of people picking it up. It will also help if all public health bodies across the world robustly recommend the use of FFP2 or N95 masks which filter out virus-containing aerosol particles more effectively than cloth or surgical masks.

By implementing these measures we could see a clear drop in circulating virus and significantly lessen the chances of a recombinant variant forming.

### **'Flurona'**

Recently, another term merging two words – flu and coronavirus – has emerged. "Flurona" refers to cases where somebody is infected with COVID-19 and flu at the same time. It is not a distinct disease, so while the names may have been merged in the term "Flurona", the viruses themselves have not merged.

Flu and SARS-Cov-2 are two distinct viruses that cause two different illnesses, however, because of the way the viruses are structured and how they enter cells it is possible to be infected simultaneously with both viruses. If this happens, the infected person can have symptoms of both but the viruses themselves will not merge to form a new virus.

Instances of people being infected with flu and COVID-19 at the same time have been reported in Israel, the US, Hungary, the Philippines and Brazil. Cases of simultaneous infections from both viruses were reported as far back as February 2020, before the term itself was coined.

The fact that we are becoming more aware of it now may be a result of increased mixing. The lockdown restrictions and social distancing measures imposed in many countries during the earlier stages of the pandemic led to lower rates of flu and other infections. But as countries have started to open up in a bid to save their economies, even as the highly contagious Omicron variant circulates, the usual infections such as colds and flu have begun circulating again.

While scientists know it is possible to develop COVID-19 and influenza at the same time, it is too early to determine exactly how sick "Flurona" could make people and it is also

unclear how much flu is circulating due to a lack of routine testing for the virus. However, we do know that older people and those with underlying health conditions, such as diabetes, cardiovascular disease and conditions which weaken the immune system, are at greater risk from either virus.

Getting vaccinated against both is the best way to protect yourself from "Flurona". You will need both the flu and COVID-19 vaccines as they are two different viruses and being vaccinated against one will not protect you from the other. You can even have both at the same time, in fact that is what I did, having my COVID-19 booster in one arm and the flu jab in the other.

### **Good News: IHU Variant not spreading**

The variant, which has been given the name IHU or B.1.640.2 was first [detected](#) in France at the end of last year and is known to have 46 separate mutations that are being monitored for vaccine escape and increased transmissibility.

The variant has already been defined by the World Health Organization (WHO) as a "variant under monitoring".



IHU variant is named after Institut Hospitalier Universitaire, the place where the cases were first detected. The individual who was identified as having the first case of this variant was originally from Cameroon, and was said to be fully vaccinated. In total, 12 people were infected

with the IHU variant and all of them had travelled from destinations linked to the index case.

Scientists have begun looking at the mutations associated with B.1.640 and do not think it is likely to be as transmissible as Omicron and hence is unlikely to spread to greater numbers of people as it will be outcompeted by Omicron easily. While researchers were concerned about how the number of mutations would affect the variant's transmissibility, it hasn't been detected outside the southern Alps region of France and given that it has been three months since the first case was detected, this would suggest it is not highly transmissible. We are only hearing about it now as the genome sequencing is similar to Omicron.

Although they are continuing to monitor it for its ability to evade the protection offered by vaccines, the world's focus remains on Omicron, and rightly so.

While some experts have said that they know too little about the B.1.640 variant to make assumptions about the exact course it will take, others believe that new variants are to be expected as COVID-19 continues to spread, this being one of them – and not all of them will gain the kind of traction seen with the Delta and the Omicron variants.

WHO continues to ask everyone to stay alert and take necessary precautions to avoid being infected with COVID-19, many of us will be used to following this advice by now: wearing a mask in indoor public spaces, social distancing and regular hand washing.

Also, it is important that people take vaccinations as soon as possible to protect themselves from the virus.

SOURCE: AL JAZEERA

So:

<https://www.aljazeera.com/features/2022/1/17/deltacr-on-and-flurona-should-we-worry-about-covid-19-variant>

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