Doctors continue strike (Hindustan Times: 20211209)

Delhi: Emergency patient services hit as resident doctors continue strike

For the last three days, patients from these hospitals are being referred to the All India Institute of Medical Sciences and the Delhi government’s Lok Nayak hospital.

Patient services at Delhi’s central government-run hospitals were severely affected as the strike by resident doctors’ entered 12th day, with medics at Ram Manohar Lohia, Safdarjung, and Lady Hardinge Medical College withdrawing even from emergency services.

For the last three days, patients from these hospitals are being referred to the All India Institute of Medical Sciences and the Delhi government’s Lok Nayak hospital. But, doctors from Lok Nayak hospital have also decided to boycott emergency work Thursday onwards.

Lok Nayak is also the designated hospital for treatment and isolation of those suspected to have the new omicron variant infection.

“Even after boycott by many institutions in Delhi, we continued to run emergency services, but the apathy of the government and the plight of overburdened residents have brought us to a total boycott of services including OPD, OT, ward, and emergency services from
Thursday,” said a letter by the resident doctors’ association to the dean of Maulana Azad Medical College that is associated with Lok Nayak hospital.

The doctors have been protesting delays in conducting NEET-PG counselling, which has left medical college-hospitals with only two-thirds the number of resident doctors -- considered the backbone of medical care at these hospitals. The doctors say that they have been overworked, and in addition over 42,000 medical students are losing out on a year of education.

The counselling has been delayed due to the Supreme Court was hearing a bunch of petitions regarding economic reservation in the examination (NEET-PG).

**Covid vaccine (Hindustan Times: 20211209)**


Omicron threat may be countered with extra dose of Covid vaccine

The earliest studies on omicron are in and the glimpse they’re providing is cautiously optimistic: while vaccines like the one made by Pfizer Inc. and BioNTech SE may be less powerful against the new variant, protection can be fortified with boosters.

A health worker prepares a dose of Covaxin vaccine against Covid-19 coronavirus at a vaccination centre in New Delhi on September 14, 2021.(Photo by Prakash SINGH / AFP)

The earliest studies on omicron are in and the glimpse they’re providing is cautiously optimistic: while vaccines like the one made by Pfizer Inc. and BioNTech SE may be less powerful against the new variant, protection can be fortified with boosters.

Studies from South Africa and Sweden are showing that omicron does, as feared, cause a loss of immune protection -- but not a complete one. In a study of blood plasma from people given two doses of the Pfizer-BioNTech shot, there was a 41-fold drop in levels of virus-blocking antibodies compared with the strain circulating at the start of the pandemic.

A separate study from Stockholm’s Karolinska Institute was more optimistic, finding the decline in antibodies against omicron was only slightly worse than for delta, the strain currently causing most Covid-19 cases worldwide.
The loss of immune protection is “robust, but not complete,” said Alex Sigal, head of research at the Africa Health Research Institute in Durban, who presented the findings of the first study over Zoom late Tuesday. “A good booster probably would decrease your chance of infection, especially infection leading to more severe disease,” he said.

The results of the first reported experiments on the effectiveness of vaccines against omicron come as governments and financial markets try to gauge if the new variant will have a significant impact on the world’s attempt to move past the pandemic. Omicron’s rapid spread, initially in southern Africa, has raised concern the strain would be sufficiently immune-evasive to require new vaccines, and hundreds of researchers have been working around the clock to answer the question.

Initial reaction to the study results from some experts was encouraging. “These Karolinska data are reason for optimism,” said Shane Crotty, a professor in the Center for Infectious Disease and Vaccine Research at San Diego’s La Jolla Institute for Immunology. “That is pretty close to the best case scenario I was considering.”

Levels of neutralizing antibodies are a key marker of immune protection. Although they naturally decline in the months after an infection or vaccination, their ability to thwart coronavirus variants has been shown to improve over time. What’s more, studies have found that a third dose some six months after the second can bolster levels of these better-quality antibodies, making boosters an important weapon to fight omicron.

“There will be more breakthrough” of vaccine-induced immunity, Sigal said, adding that fully vaccinated people should get booster shots and those who’ve been previously infected should get vaccinated.

Representatives for Pfizer and BioNTech, makers of the first Covid vaccine cleared in the U.S., didn’t immediately respond to a request for comment. New York-based Pfizer is slated to release its own data at 6:45 a.m.

The World Health Organization has warned omicron could fuel surges with “severe consequences” amid signs that it makes the coronavirus more transmissible. Still, the jump in cases in South Africa following omicron’s emergence hasn’t overwhelmed hospitals so far, prompting some cautious optimism that the new strain may cause mostly mild illness.

**Preliminary Results**

The results are preliminary and exact levels of immune escape may change, said Sigal, whose lab was the first to isolate the beta variant identified in South Africa in late 2020. He noted that omicron escapes antibody neutralization more readily than beta, which had been considered the most immune evasive of the variants of concern detected previously.

A key question researchers are trying to address is whether existing Covid vaccines need to be altered to protect against omicron.

The Geneva-based WHO is looking to play a coordinating role on any such recommendation, as it does with seasonal influenza vaccines, Ana-Maria Henao-Restrepo, who co-leads the WHO’s research and development blueprint for vaccines and innovations during outbreaks and pandemics, said last week.

Any vaccine changes would require careful consideration, especially since delta is currently the main driver behind the Covid epidemics and existing vaccines provide a sufficient shield against it, she said.
More Data
The magnitude of the drop in neutralizing antibodies against omicron could indicate a need for omicron-matched vaccines, though other considerations may play a role, said Stephen Goldstein, an evolutionary virologist at the University of Utah in Salt Lake City. Larger studies looking at neutralizing antibodies from people immunized with other vaccines are also needed, he said.

“More importantly though will be epidemiological studies looking at the frequency of reinfections and breakthrough infections, as well as disease severity in those patients,” Goldstein said. “I am still optimistic that vaccination or prior infection will provide some measure of protection against severe disease.”

Since South Africa announced the discovery of omicron on Nov. 25, about 450 researchers globally have been working to isolate the variant from patient specimens, grow it in labs, verify its genomic sequence, and establish methods to test it in blood-plasma samples, according to the WHO.

The work in Sigal’s lab involved testing 14 blood plasma samples collected from a dozen people who had been given a second Pfizer-BioNTech shot about a month earlier to gauge the concentration of antibodies needed to neutralize, or block, the live omicron virus. Levels of neutralizing antibodies against the variant were significantly higher in a subset of participants who had a bout of Covid about a year earlier, Sigal said.

Hybrid Immunity
That indicates so-called hybrid immunity generated by natural infection followed by immunization may provide reasonable protection against omicron. In those who have never had Covid, this could be emulated by administering three doses of vaccine, the La Jolla Institute’s Crotty said.

“What many of us want to see is head-to-head comparisons against other variants, because of the broader experience with them,” he said. Scientists also want to better understand the significance of the reduction in levels of neutralizing antibodies against omicron, and to study the antibody responses against omicron in blood sera from people who have received three doses of either the Pfizer or Moderna vaccine, Crotty said.

In the weeks ahead, more clarity will also emerge from studies assessing the T cell response to omicron, like one being run by the La Jolla Institute’s Alessandro Sette.

It’s possible omicron will have a less extreme impact on T cells, the white blood cell the immune system uses to kill virus-infected cells, said Dan Barouch, the William Bosworth Castle professor of medicine at Harvard Medical School and head of Boston’s Beth Israel Deaconess’ Center for Virology and Vaccine Research.

The responses of so-called CD8 or “killer” T cells are likely to be important for protection against severe disease, he said.

Omicron variant: (Hindustan Times: 20211209)
https://epaper.hindustantimes.com/Home/ArticleView

What we know about Omicron variant so far
New Delhi: The findings from the first lab studies to estimate how resistant the Omicron variant could be were published early on Wednesday, unanimously predicting what could be the biggest hit yet to the protection offered by coronavirus vaccines, although experts said fully vaccinated people may still have a substantially better chance of averting severe disease.

The findings are based on lab tests in which researchers expose a live virus or an engineered virus expressing the same mutations as the Omicron variant to antibodies drawn from people who were given doses or had a past infection, or both.

The first was from researchers in South Africa, where the variant of concern (VOC) has spread rapidly, leading to an unprecedented explosion in new cases. The scientists found there was a 41.4-fold drop in neutralisation ability overall, to the point that variant almost
completely escaped the antibodies from most fully vaccinated samples. But, crucially, five out of six samples of antibodies from people who were fully vaccinated and had a past disease could neutralise the virus.

Two other studies (see box), by separate teams of researchers based in Sweden and Germany, made similar findings, including a massive drop in neutralisation titers, which is calculated on the basis of concentration required for antibodies to neutralise the virus – the more concentration, therefore more antibodies, needed, the sharper is the drop in the titer. A fourth study conducted by Pfizer and its subsidiary BioNTech too recorded a 25-fold drop in titers when antibodies from people with two doses were exposed to Omicron, but the deficit disappeared when antibodies from people with a third booster dose was used.

What does this mean?

The studies confirm what immunologists were hypothesising seeing the unprecedented number of mutations in Omicron: the ability of past immunity, elicited either solely by vaccination or only by history of disease is likely to be significantly hampered in staving off an Omicron infection.

But crucially, the immune escape is only partial, not total, and that those with hybrid immunity – vaccinated as well as recovered from Covid-19 – are likely to have substantial protection. Hybrid immunity has long been regarded as a sort of gold standard of protection against the Sars-Cov-2.

Pfizer, in its statement, contends that its third shot offers significantly higher protection, although the study from Frankfurt university researchers appears to conclude that even with boosters, neutralisation titers show a significant drop.

Scientists also said that vaccine efficacy against severe disease and death is likely to remain reasonably high among all groups – those with a past infection, full vaccination, vaccination and infection, and boosted vaccination.

This is likely due to the activation of memory cells, particularly T cells, which can recognise the pathogen more broadly and are less affected by mutations in Omicron – something Pfizer alluded to in its statement.

“Although two doses of the vaccine may still offer protection against severe disease caused by the Omicron strain, it’s clear from these preliminary data that protection is improved with a third dose of our vaccine,” said Albert Bourla, chief executive of Pfizer. “Ensuring as many people as possible are fully vaccinated with the first two dose series and a booster remains the best course of action to prevent the spread of Covid-19.”

The four lab tests are still using small numbers of samples and must be seen as preliminary, and they do not signal whether the drop in vaccine efficacy will be in similar measure. Measuring neutralisation in lab setting is not a proxy for vaccine efficacy, but they do act as a correlate.

Implication for India

The high transmissibility of Omicron variant is a cause for concern for India as it is globally. India’s mainstream vaccines have also demonstrated lower efficacy across the board when compared to mRNA vaccines.

In late July, the Indian Council of Medical Research estimated that two out of every three Indians may have been exposed to the virus, translating to a high proportion of the general public likely exposed to an infection. As on December 8, the country has also delivered at least one dose to 86% of the adult population.

India, therefore, likely has a different immune profile to other countries, especially those where vaccine coverage and case rates have been low. A sizeable number of people may even have hybrid immunity.
But the findings from the studies published in the last 24 hours reinforce the need for a booster dose strategy in the country, particularly for the elderly population that was mostly covered in the first half of 2021. How Omicron spreads among children will also be of crucial implication for India, where no one under the age of 18 is eligible for a dose yet.

**Air pollution (Hindustan Times: 20211209)**

[https://epaper.hindustantimes.com/Home/ArticleView](https://epaper.hindustantimes.com/Home/ArticleView)

Indoor air pollution 20 times limit prescribed by WHO, shows study

New Delhi : The indoor air pollution levels in Delhi homes is more than 20 times the World Health Organization (WHO) standards, a study by the Energy Policy Institute at the University of Chicago (EPIC India) has shown.

The study also highlighted that the levels of PM 2.5 (particulate matter of diameter less than 2.5 micrometres) was significantly higher than the levels reported by the nearest outdoor government monitors.

The study released on Wednesday contended that while high-income households were 13 times more likely to own air purifiers as compared to low-income households, its impact on indoor air pollution was only around 10%.

The study further noted an 8.6% decline in indoor PM2.5 levels in homes with pollution monitors (usually with air purifiers), and said that such residents were likely to make “modest changes in inexpensive defensive practices and ventilation behaviours.”

“In Delhi, the bottom line is, whether someone is rich or poor, no one gets to breathe clean air,” said Kenneth Lee, the lead author of the study.

“It is a complex vicious cycle. When you do not know about the pollution levels inside your homes, you do not worry about it, and hence you are less likely to take corrective actions. Only with increased awareness, demand for clean air may gain momentum,” he added.
The study surveyed thousands of Delhi households from varying socioeconomic strata between 2018 and 2020, and found that indoor PM2.5 levels tend to spike in the mornings and evenings when households were most likely to be cooking.

Experts said that while there is growing awareness among people on the harmful impacts of outdoor pollution, people are still unaware about how the air inside their homes, offices and schools can also be highly polluted.

“We need to create awareness among people. While there are a lot of studies about outdoor pollution and how severe it can be for your health, more studies are needed to assess the levels of indoor pollution and how they can impact people. At least you can gear yourself with masks outdoors but inside your homes, you tend to drop your guard,” said Anumita Roychowdhury, executive director (research and advocacy), Centre for Science and Environment.

Lee added, “It’s critical to address the information gaps related to indoor air pollution urgently. High-frequency accurate PM2.5 information communicated through either government monitor or by indoor air quality monitors is the first step but only when it is complemented with an increase in literacy around health consequences of air pollution and the benefits of adopting various defensive actions – can we expect more favourable outcomes.”

The air quality has been in the ‘poor’ range for the last two days, dropping from 255 on Tuesday to 237 on Wednesday, according to the Central Pollution Control Board’s air quality index. Delhi has so far recorded 12 ‘severe’ air days since November 1 -- 11 in November, and one in December.

**Lose belly fat (Hindustan Times: 20211209)**


Lose belly fat naturally with these effective tips

- Your belly fat can put you at risk of several health issues from diabetes to cardiac diseases. Here are easy tips to get rid of it.

The only way to deal with this kind of fat is leading a healthy lifestyle including balanced diet and physical exercise.(Pixabay)
Deeper belly fat poses a greater health hazard than any other kind of fat that lurks beneath the skin. Not just obese, deep belly fat or visceral fat can be accumulated in the bodies of even those who look relatively thin otherwise.

Men tend to struggle with belly fat more than women but as the latter hit menopause, they are at a greater risk of expanding their waistline considering the body fat redistributes during this time.

Visceral fat can put you at risk of several diseases like cardiac diseases, diabetes, blood pressure, breathing problems etc as it surrounds your internal organs. The only way to deal with this kind of fat is leading a healthy lifestyle including balanced diet and physical exercise.

Ayurveda expert Dr Dixa Bhavsar who regularly shares tips to manage diseases and several home remedies took to social media to share tips to lose belly fat naturally.

According to her, belly fat is one of the signs of hormonal imbalance, poor metabolism, genetics and poor lifestyle choices and following a set of yoga and pranayama exercise, changing dietary habits and fixing sleep routine could help you burn this most stubborn kind of fat.

If you were not paying attention to the perils of belly fat so far, now is the time to do that and follow these easy tips by Dr Bhavsar to cut that visceral fat from your abdomen to lead a healthy life.

1. **12 Suryanamaskars daily**

![Various stages of Suryanamaskar](Shutterstock)

You have seen many celebs including Kareena Kapoor nailing them, it is your turn to master them now. Do them daily to see the difference.

"Suryanamaskars are best for hormonal balance, metabolism and absorption of nutrients by the gut. It also helps improve mental health, sleep and keeps your agni burning throughout (optimum digestion) which helps reduce stubborn belly fat easily," says the Ayurveda expert.

2. **1000 Kapalbhati pranayam**

From fixing your digestive issues and gastric problems, Kapalbhati also helps with insomnia and improves your overall mood.
Deep breathing exercises like Brahmari pranayam, Bhastrika pranayam, Anulom vilom pranayam, Kapalbhati pranayam strengthen your lungs.

"Improves blood circulation & digestion, facilitates quick detox, best for burning belly fat as abdomen is mainly involved during the practice of kapalbhati (continues exhalation). It also helps regularize periods, improves the flow, help manage PMS (so best for those suffering from PCOS, insulin resistance, thyroid)," says Dr Bhavsar.

3. **Circadian intermittent fasting**

Intermittent fasting is gaining popularity with each passing day and involves eating for 8 hours from morning till sunset. It is particularly beneficial in losing belly fat.

"It means you fast and eat for certain hours depending on what works for your body. Circadian fasting means you stop eating post sunset. So CIF is eating for 8 hours starting from morning and having your last meal either before sunset or within 1 hour of sunset. Best before 8 pm (Never post that)," says the expert.

4. **Drinking warm water**

Warm water helps by improving your metabolism and burning fat not just from the belly but from everywhere. It also helps with bloating, gas, poor appetite and feeling heavy all the time.

5. **Sound Sleep (7-8 hours)**

The better you sleep, the quicker you lose weight. Sound sleep for good 7-8 hours helps with liver detox, hormonal balance, weight loss, improving mental health by reducing cortisol (stress hormone) and providing your body and mind enough time to rest and digest by activating para sympathetic system.

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**Coronavirus (The Times of India: 20211209)**

India on Thursday reported 9,419 new cases and 159 fatalities, taking the cumulative caseload to 34,666,241 (94,742 active cases) and fatalities to 474,111.

Worldwide: Over 267.41 million cases and over 5.28 million fatalities.


The virus attacks fat tissues: (The Times of India: 20211209)
https://timesofindia.indiatimes.com/coronabytes/msid-88179097.cms

New research has found that the coronavirus infects both fat cells and some immune cells within fat, prompting a damaging defensive response, reported The New York Times.

The study — it has not yet been peer reviewed or published in a scientific journal — could help answer the question: Why overweight or obese people, particularly younger adults, have been more likely to develop severe Covid-19 and more likely to die.

These patients often have health conditions like diabetes that heighten their risk, but scientists have become increasingly convinced that the heightened vulnerability has something to do with obesity.

Dig deeper: It may be that body fat, which has limited immune defenses, is a place where the virus can replicate and continue to propel harmful inflammation. Think a kind of reservoir for the SARS-CoV-2.

Fat tissue is composed mostly of fat cells, or adipocytes. It also contains pre-
adipocytes, which mature into fat cells, and a variety of immune cells, including a type called adipose tissue macrophages.

- The fat cells themselves could become infected, the scientists found, yet did not become very inflamed. But certain immune cells called macrophages also could be infected, and they developed a robust inflammatory response.

- Even stranger, the pre-adipocytes were not infected but contributed to the inflammatory response. (The scientists did not examine whether particular variants were more destructive in this regard than others.)

- The authors suggested the new evidence could point to new treatments that target body fat. They also speculated that body fat might even contribute to long Covid.

Coronavirus: (The Times of India: 20211209)

Shut Covid-hit schools temporarily in Telangana: Teachers’ body

HYDERABAD: Officials in districts were flouting the norm of closing down schools on a temporary basis if over five cases of Covid-19 are reported, teachers have alleged. They said that authorities were forcing both teachers and students to attend physical classes.

“We have seen instances of district officials denying permission to school principals to temporarily shut school even when five or more Covid-19 cases are reported from a school. Officials should strictly follow guidelines issued by the state and ICMR. They should not force students and teachers to attend physical cases when there is an outbreak,” said Chava Ravi, general secretary, Telangana State United Teachers Federation.

Doctors reiterated that whenever there is an outbreak, the place should ideally be closed for two weeks, which is the prescribed quarantine period. The attendance in schools where Covid-19 cases are reported is declining drastically as many parents are now concerned. At the Zilla Parishad High
School, Mamidipally, while 120 students attended physical classes on Monday, the number dropped to just 15 on Wednesday.

“It is better to be cautious and precautious rather than assuming that nothing would happen,” said Dr Sanjeev Singh Yadav, National Secretary for the Indian Medical Association’s Academy of Medical Specialities (AMS). He said that students, teachers, and other staff should be asked to be in quarantine for 14 days and the entire premises should be shut and reopened after two weeks after disinfecting.

An official from the school education department said that the state is more inclined towards sanitising and running the school rather than temporarily shutting down when Covid-19 cases are reported to prevent further loss of learning.

Pune: Indian Medical Association writes to government (The Times of India: 20211209)

PUNE: The Indian Medical Association’s Maharashtra chapter on Tuesday wrote a letter to the Centre reminding it to start offering booster doses against Covid-19 to healthcare workers.

The letter, undersigned by IMA Maharashtra president, Suhas Pingle and secretary Mangesh Pate, stated that the new variant Omicron, with higher transmissibility, might attack with a huge surge in cases and hence the booster doses would enhance the healthcare workers’ immunity against the new variant threat.

Coronavirus: Weekly positivity rate (The Times of India: 20211209)
PUNE: All districts in Maharashtra have registered a positivity rate below 2% for the week ending December 7, revealed the public health department’s note shared at the state Cabinet meeting on Wednesday.

The data also stated that the state’s weekly positivity rate (till Monday) was lowest at 0.8% in the past three months. This was down from 1.02% for the week ending November 24.

Though 13 districts have a higher weekly positivity rate (WPR) than the state’s average, public health experts felt that it was an encouraging sign that the overall WPR was below 2%.

Among the districts with WPR higher than the state’s average were Pune (1.64%), Palghar (1.27%) and Aurangabad (1.24%). “This is the first time after many months that all the districts have registered a WPR below 2%. Besides, 22 districts have WPRs below the state’s average,” a state health official said.

The state has told all districts to double the number of tests following the emergence of the Omicron variant of the Sars Cov-2 virus.

A public health expert told TOI that it was important to keep a strict watch on the situation even if the current Omicron cases were mild in nature. The official said the emphasis should be on ramping up vaccination and testing.

A task force member said it was essential to follow all the Covid appropriate behaviour and ensure that there was enough testing, tracking, tracing and vaccination.

The cabinet note revealed that the tests were less than the World Health Organisation’s
(WHO) norms in three districts — Amravati (72 per day per million), Buldhana (99 per day per million) and Yavatmal (114 per day per million).

The Centre had earlier pulled up the state as nine districts were registering tests below the WHO norms (140 tests per day per million populations).

As many as 26 districts in the state have registered less than 100 cases in the week ending December 7. Among the revenue division, Konkan had the maximum active Covid cases. Konkan was followed by the Pune and Nashik divisions.

**Coronavirus in Delhi (Hindustan: 20211209)**

Omicron variant reaches 57 countries (Hindustan: 20211209)

57 देशों में ओमिक्रन वैलेन्ट। WHO ने कहा- कोविड-19 के मरने की संख्या बढ़ेगी।

Biotech and Pfizer vaccine neutralizes omicron (Hindustan: 20211209)

बायोटेक और पाफियर वैक्सीन ओमिक्रन के साथ संबंधित है।
Omicron new cases of Corona (Hindustan: 20211209)

रोजाना कितने लोगों को करोनाभीत करने के लिए रासायनीक शिक्षा दी जा रही है, जबकि रोजाना 85 हजार मात्रा 591 लोगों को करोनाभीत करने के लिए रासायन के रूप में शिक्षित किया जा रहा है।

करोनाभीत बजट के माध्यम से करोनाभीत का कर्मचारी क्षेत्र में नेतृत्व करने के लिए 24 लाख 9,419 करोड़ रु. का बजट निर्धारित किया गया है, जिसमें 1000 लाख के निम्न रासायनिक शिक्षा के लिए करोनाभीत का कर्मचारी क्षेत्र में 85 हजार मात्रा 591 लोगों को करोनाभीत करने के लिए शिक्षित किया जाता है।

करोनाभीत के लिए कर्मचारी क्षेत्र में करोनाभीत का कर्मचारी क्षेत्र में 94,742 करोड़ रु. का बजट निर्धारित किया गया है, जिसमें 2020 में करोनाभीत का कर्मचारी क्षेत्र में 98.36 हजार मात्रा 24 लाख काम करने के लिए शिक्षित किया जाता है।

बजट में काम करने वाले 130.39 हजार करोनाभीत का कर्मचारी क्षेत्र में करोनाभीत का कर्मचारी क्षेत्र में 85 हजार मात्रा 591 लोगों को करोनाभीत करने के लिए शिक्षित किया जाता है।