



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Tuesday 2020721

New Cases

**Single-day spike of 37,148 coronavirus cases takes India's tally to 11.55 lakh
(The Tribune:
2020721**

<https://www.tribuneindia.com/news/nation/single-day-spike-of-37-148-coronavirus-cases-takes-indias-tally-to-11-55-lakh-115878>

This is the sixth consecutive day when COVID-19 cases increased by more than 30,000

Single-day spike of 37,148 coronavirus cases takes India's tally to 11.55 lakh

A medical worker helps a boy to draw inside a care centre for the coronavirus disease (COVID-19) patients at an indoor sports complex in New Delhi. REUTERS

India recorded 37,148 COVID-19 cases in the last 24 hours, pushing its tally to 11,55,191 while the total number of recoveries increased to 7,24,577, according to the Union Health Ministry data on Tuesday.

The death toll due to the disease rose to 28,084 with 587 fatalities reported in a day, the data updated at 8 am showed.

There are 4,02,529 active cases of the coronavirus infection currently in the country, while 7,24,577 people have recovered till now. Thus, 62.72 per cent people have recovered so far, it said.

The total number of confirmed cases includes foreigners.

This is the sixth consecutive day when COVID-19 cases increased by more than 30,000.

Of the 587 deaths reported in the last 24 hours, 176 are from Maharashtra, 72 from Karnataka, 70 from Tamil Nadu, 54 from Andhra Pradesh, 46 from Uttar Pradesh, 35 each from West Bengal and Delhi, 20 from Gujarat, 17 from Madhya Pradesh and 10 from Jammu and Kashmir.

Nine fatalities have been reported from Rajasthan, followed by eight in Punjab, seven in Telangana, six each in Haryana and Odisha, four in Jharkhand, three in Uttarakhand, two each in Tripura and Meghalaya, and one each in Assam, Goa, Chhattisgarh, Kerala and Puducherry.

Psychological pandemic

A psychological pandemic brews (The Tribune: 2020721)

<https://www.tribuneindia.com/news/health/a-psychological-pandemic-brews-114871>

A sudden increase in deaths recently by suicides due to coronavirus-related trauma is worrying health experts and researchers, who are grappling with causative factors pushing people into extreme situations

Covid-19-induced lockdowns and fears have triggered a full blown psychological pandemic across the country pushing people into spaces and situations they have never seen before.

With cases still peaking, the incidence of suicides due to fear of contracting the virus or succumbing to it, besides social stigma and sense of entrapment during lockdowns is witnessing a slow but progressive surge.

Conservative estimates by researchers attribute more than 100 recent deaths in India to Covid-related trauma, a trend that has led the Ministry of Health to issue detailed guidelines on mental health during the pandemic.

Most of these deaths have, tragically, been by suicide, the latest involving a Madhya Pradesh resident Rajmani Sattar, who hanged himself in the washroom of AIIMS Trauma Centre this Thursday. Sattar was not a Covid patient but had been under prolonged hospitalisation for a chronic condition. He was away from his family and friends due to Covid-related restrictions.

Not too long before Sattar's demise, a 37-year-old journalist Tarun Sisodia on Covid management at AIIMS died of suicide after jumping off the fourth floor of the hospital. Sisodia's death sent shockwaves across the media world leading to demands for a judicial probe into the circumstances of his death. An internal AIIMS enquiry ruled out malafide but Health Minister Harsh Vardhan nevertheless ordered the replacement of hospital trauma centre in charge.

With deaths by suicides rising amid the exploding pandemic, experts are grappling with causative factors that are pushing people into extreme situations.

Some studies have shown the virus not only damages the lungs, it also impacts the brain adversely, besides harming other organs.

“Researchers have now found that Covid-19 could trigger changes in the central and peripheral nervous system of those infected. Preliminary evidence suggests the disease can cause serious brain damage, even in mild patients. Psychiatric manifestations of Covid-19 involve

hallucinations and delirium among others. It's an evolving field because the disease is only six months old," leading psychiatrist Ashish Pakhre says.

Pakhre also warns of a condition mental health experts call Werther Effect that has set in since actor Sushant Singh Rajput died of suicide in his Mumbai home.

"Werther Effect exemplifies the contagious nature of suicide. When a celebrity passes away by suicide, he can trigger similar episodes in local communities pushing people, who are on the brink, to take their lives. We have seen many suicides after Rajput's death and need to watch out for signs of depression in youngsters. Changes in moods and behaviour patterns that last over two weeks should constitute alarming signs for anyone. People must remember that depression is not in the head. It is a medical condition which needs treatment," Pakhre said.

At least eight youngsters across India, most of them fans of Rajput, died by suicide after the actor passed away.

Covid-induced suicides also continue unabated. In mid-June an IRS officer in Delhi killed himself fearing he might infect his family with Covid. The officer turned out to be Covid-19 negative.

Earlier this March, a young Covid-19 suspect jumped off the seventh floor of Delhi's Safdarjung Hospital and died.

India's first Covid-related suicide was reported much earlier on February 12 from South India where a 50-year-old man mistook seasonal flu symptoms to be Covid-19 and committed suicide.

The psychological pandemic triggered by Sars-Cov2 virus is not specific to any one nation. It is global.

Such has been its impact that the WHO had to, on July 2, call upon countries to pay greater attention to mental health and suicide prevention.

"Hitting lives and livelihoods, the pandemic is causing fear, anxiety, depression and stress among people. Social distancing, isolation and coping with perpetually evolving and changing information about the virus has both triggered and aggravated existing and pre-existing mental health conditions, which need urgent attention," WHO Southeast Asia Regional Director Poonam Khetarpal says.

The WHO acknowledged that stigma related to Covid-19 infection might lead to feelings of isolation and depression, impacting mental health.

Another precipitating factor the world health body recently flagged to member nations is the rising cases of domestic violence during the pandemic.

Domestic violence is reported to have increased during lockdowns imposed by almost all countries in the Southeast Asia Region of the WHO, Khetarpal says urging early identification of mental health conditions, recognition of suicidal behaviours and appropriate management through a multi-sectoral approach even as the world continues to focus on arresting further spread of the pandemic.

Suicide claims almost 8,00,000 lives every year globally and is the leading cause of death among young people aged 15-29 years of age, global health statistics show.

There is also evidence to suggest that for each adult who dies of suicide, there are more than 20 others attempting suicide.

The WHO South-East Asia Region of 11 nations, including India, accounts for 39 per cent of the global suicide mortality and is among the most vulnerable to mental health pressures Covid-19 is exerting.

India alone, on an average, accounts for around a third of global suicides, among women and a fourth of suicides among men.

Covid-19-related suicides, however, remain a global marker. The most high-profile suicide linked to the pandemic has involved Thomas Schaefer, the finance minister of Germany's Hesse state, who killed himself amid worries over coping with the economic fallout of the Covid crisis.

At least eight youngsters across India, most of them fans of Rajput, died by suicide after the actor passed away. This was in stark reminiscence of the 1974 phenomena noted sociologist David Phillips documented in his studies on the infectious nature of suicides. Phillips found that when British and American newspapers ran a front page story about a suicide, the number of such deaths in the neighbourhoods increased immediately afterwards. He called the phenomenon Werther Effect, which led to the WHO issuing guidelines on responsible reporting of suicides.

Common blood test

Common blood test can advance heart failure treatment (The Tribune: 2020721)

<https://www.tribuneindia.com/news/health/common-blood-test-can-advance-heart-failure-treatment-115444>

A growing number of studies suggest that low cardiac T3 may significantly contribute to a patient's symptoms and underlying heart dysfunction.

Common blood test can advance heart failure treatment

A growing number of studies suggest that low cardiac T3 may significantly contribute to a patient's symptoms and underlying heart dysfunction.

Researchers have developed a new use for a common blood test, which could provide potentially life-saving treatment for heart failure.

According to the study, published in the journal *Frontiers in Physiology*, biomedical experts believe that half of heart failure patients likely have low levels of the thyroid hormone T3 in their cardiac tissue.

A growing number of studies suggest that low cardiac T3 may significantly contribute to a patient's symptoms and underlying heart dysfunction.

The symptoms of low cardiac T3 are also virtually indistinguishable from other conditions that lead to heart failure, suggesting that a significant number of underlying heart dysfunction and heart failure symptoms may actually be caused by a treatable T3 hormone imbalance.

“Despite this treatability, clinicians are hesitant to prescribe T3 to heart patients, as too much of the hormone could accidentally trigger an irregular heartbeat,” the study authors from New York Institute of Technology (NYIT) in the US, wrote.

In addition, no method has yet been identified to titrate, or continually measure and adjust, for the dosage of T3 needed to safely restore the heart's thyroid hormone function.

Now, an existing biomarker called brain natriuretic peptide (BNP) may provide the much-needed solution, the researchers said.

In medicine, biomarkers are biological molecules found in a patient's blood, fluid, or tissue sample that can indicate whether a disease or condition is present.

They can also be used to see how well the body responds to treatments.

During heart failure, the heart will secrete higher levels of the biomarker BNP into blood, a key indication that the heart disease is worsening.

The researchers hypothesised that by analysing a patient's BNP levels in response to added T3, clinicians could titrate for just the right dosage required.

Using rat models of heart failure caused by low T3 and heart attack, the researchers tested their theory, examining changes in BNP, cardiac function, and heart failure genes after T3 treatment.

For the first time, they discovered through a simple blood test, not an extensive, invasive procedure, that T3 could be adjusted to safely restore cardiac hormone balance.

In addition, because heart patients routinely undergo BNP and thyroid hormone testing, these widely used biomarkers could be easily monitored from blood tests.

“The results were remarkable, suggesting that serum BNP levels can be used to titrate the volume of T3 required,” said study researchers Martin Gerdes from NYIT.

“When T3 treatment led to a reduction in serum BNP levels, this was associated with improved cardiac function and reversal of these heart failure genes,” Gerdes added.—IANS

Mental trauma

Psychologists, doctors in Mizoram's quake-hit areas to assist people deal with mental trauma

Twenty-two earthquakes have hit the state since June 18(The Tribune: 2020721)

<https://www.tribuneindia.com/news/health/psychologists-doctors-in-mizorams-quake-hit-areas-to-assist-people-deal-with-mental-trauma-115425>

Psychologists, doctors in Mizoram's quake-hit areas to assist people deal with mental trauma
Twenty-two earthquakes have hit the state since June 18

The Mizoram government is sending psychologists and doctors to the remote villages of the state near the Myanmar border, hit by a series of earthquakes, to assist the people to deal with the mental trauma following the natural calamities.

Twenty-two earthquakes have hit the state since June 18 with three within a span of seven hours only on Friday, forcing hundreds of people to live in the open amid the COVID-19 pandemic.

Three teams, each consisting of a doctor, a psychologist and a psychiatrist, will be reaching Champhai, the worst-hit district, during the day and speak to the people, Health Minister R Lalthangliana said.

Lalthangliana said the frequent earthquakes have a psychological impact on the people who are forced to spend the nights outside their homes.

He said due to the earthquakes people were afraid of sleeping in their homes.

A community leader from Dungle village in Champhai said many families have spent their nights awake, while some slept inside cars and trucks.

Lalthangliana, who also holds the Geology and Mineral Resources portfolio, said a team from the department is also camping in the area for more than a week.

The latest earthquake to hit Champhai, which is located on the India-Myanmar border, was recorded in the early hours of Monday. A 3.2-magnitude earthquake struck the district at 3.39 am. The location was 24 km south of Champhai, as per the National Centre for Seismology.

Over 160 houses were damaged in Champhai in the series of quakes, officials said, adding that the final figure may be higher as they are still assessing the losses. —PTI

Mosquitoes cannot spread Covid

Mosquitoes cannot spread Covid: Study (The Tribune: 2020721)

<https://www.tribuneindia.com/news/health/mosquitoes-cannot-spread-covid-study-115398>

Mosquitoes cannot spread Covid: Study
Photo for representation only.

Scientists have confirmed for the first time that the novel coronavirus behind the Covid-19 pandemic cannot be transmitted to people by mosquitoes, a finding that adds evidence to WHO's claim that the disease is not mosquito-borne.

The research, published in the journal Scientific Reports, provided the first experimental evidence on the capacity of SARS-

CoV-2, the virus that causes Covid-19 disease, to infect and be transmitted by mosquitoes.

"Here we provide the first experimental data to investigate the capacity of SARS-CoV-2 to infect and be transmitted by mosquitoes," the study noted.

"While the World Health Organization (WHO) has definitively stated that mosquitoes cannot transmit the virus, our study is the first to provide conclusive data supporting the theory," said Stephen Higgs, a co-author of the research from Kansas State University in the US.

Samples collected by the scientists within two hours of inoculation in mosquitoes confirmed efficient delivery of infectious viruses to these insects. — PTI

According to the study, conducted at the university's Biosecurity Research Institute, the coronavirus is unable to replicate in three common and widely distributed species of mosquitoes -- *Aedes aegypti*, *Aedes albopictus* and *Culex quinquefasciatus* -- and hence cannot be transmitted to humans.

Six distinct clusters

Scientists identify six distinct clusters of COVID-19 symptoms in patient (The Tribune: 2020721)

<https://www.tribuneindia.com/news/health/scientists-identify-six-distinct-clusters-of-covid-19-symptoms-in-patients-114707>

Scientists identify six distinct clusters of COVID-19 symptoms in patients

Scientists have claimed that there are six distinct 'types' of COVID-19, each distinguished by a particular cluster of symptoms in patients, findings, if validated, can help physicians better diagnose and monitor those infected with the novel coronavirus.

The yet-to-be peer reviewed study, published in the medRxiv preprint platform, used a machine learning algorithm to analyse data from a subset of around 1,600 users in the UK and US with confirmed COVID-19, who had regularly logged their symptoms using the app in March and April.

It analysed if particular symptoms appeared together, and how this was related to the progression of the disease.

According to the scientists, led by those from King's College London in the UK, the findings have major implications for the clinical management of COVID-19 patients.

"These findings have important implications for care and monitoring of people who are most vulnerable to severe COVID-19," said Claire Steves, a co-author of the study from King's College London.

They said the research can also help doctors predict who is most at risk and likely to need hospital care in a second wave of coronavirus infections.

The study noted that patient symptoms can fall under one of the six following categories: 'flu-like' with no fever, 'flu-like' with fever, gastrointestinal, severe level one with fatigue, severe level two with confusion, and severe level three accompanied by abdominal and respiratory pain.

In the first category of patients who reported 'flu-like symptoms with no fever, the scientists said the manifestations included loss of smell, muscle pains, cough, sore throat, chest pain, but no fever.

According to their analysis, those in the second category had headache, loss of smell, cough, sore throat, hoarseness, fever, and loss of appetite, and those in the gastrointestinal symptoms cluster had a combination of headache, loss of smell, loss of appetite, diarrhea, sore throat, chest pain, but no cough.

Under the 'severe level one with fatigue' category, the scientists said patients reported loss of smell, cough, headache, fever, hoarseness, chest pain, and fatigue, and those with the level two of severity expressed these same symptoms with the addition of loss of appetite, sore throat, confusion, and muscle pain.

In the most severe category, the study noted that patients experienced headache, loss of smell, loss of appetite, cough, fever, hoarseness, sore throat, chest pain, fatigue, confusion, muscle pain, shortness of breath, diarrhea, and abdominal pain.

According to the research, all people reporting symptoms experienced headache and loss of smell, with varying combinations of additional symptoms at various times.

It said some of the manifestations, such as confusion, abdominal pain and shortness of breath, are not widely known as COVID-19 symptoms, yet are hallmarks of the most severe forms of the disease.

The scientists also analysed if people experiencing particular symptom clusters were more likely to require breathing support in the form of ventilation or additional oxygen.

They discovered that only 1.5 per cent of people with cluster one, 4.4 per cent of those with cluster two and 3.3 per cent in cluster 3 required breathing support.

For clusters four, five, and six, the researchers said these figures were 8.6, 9.9, and 19.8 per cent respectively.

Nearly half of the patients in cluster six, according to the study, ended up in hospital, compared with just 16 per cent of those in cluster one.

People with cluster four, five or six symptoms tended to be older and frailer, and were more likely to be overweight, the scientists said, adding that these patients had pre-existing conditions such as diabetes or lung disease than those in the other types.

"If you can predict who these people are at day five, you have time to give them support and early interventions such as monitoring blood oxygen and sugar levels, and ensuring they are properly hydrated -- simple care that could be given at home, preventing hospitalisations and saving lives," Steves said.

Carole Sudre from King's College London, one of the lead scientists part of the study, said the research illustrates the importance of monitoring symptoms over time to make predictions about individual risk and outcomes more sophisticated and accurate.

"This approach is helping us to understand the unfolding story of this disease in each patient so they can get the best care," Sudre said.

"Being able to gather big datasets through the app and apply machine learning to them is having a profound impact on our understanding of the extent and impact of COVID-19, and human health more widely," added Sebastien Ourselin, a senior author of the study from King's College London. PTI

Covid-19: What you need to know today

Covid-19: What you need to know today (Hindustan Times: 2020721)

<https://epaper.hindustantimes.com/Home/ArticleView>

India crossed the 40,000 cases-in-a-day mark for the first time on Sunday. Should one be worried?

In the month between June 20 and July 19, the country added 705,097 cases of the coronavirus disease (Covid-19), according to the HT dashboard. That translates to 63.14% of the 1,116,597 cases it saw (cumulatively) till July 19.

In the same period, it saw 14,209 deaths, 51.6% of the 27,487 cumulative deaths till July 19.

But there is good news as well. The period saw 472,179, or 67.42% of the 700,324 recoveries from Covid-19 till July 19. On June 20, India's recovery rate was 55.44%. On July 19, it was 62.71%. On June 20, India's death rate (measured by the case fatality rate) was 3.22%. On July 19, it was 2.46%.

Even when measured as a proportion of closed cases (deaths plus recoveries), the death rate has seen an improvement between June 20 and July 19 — from 5.5% to 3.77%.

India had 170,077 active cases on June 20; and 388,786 on July 19.

Irrespective of whatever else the numbers prove (or don't), they clearly establish that: one, we seem to be getting better at saving lives (which, a previous instalment of this column wrote, was in evidence even globally) and two, the number of daily cases has been increasing.

The first is important because it establishes that the increase in daily deaths (now consistently close to 700 as compared to consistently around 400 a month ago) ,while worrying, is offset by the fact that the proportion of those recovering is rising. The second is important because, when disaggregated across states, cities, and districts, it tells administrations where hospital beds and health care intervention are most needed.

The increase in the number of daily cases has also come against the backdrop of increased testing. India was conducting an average of 177,439 tests on June 20. That increased to an average of 327,048 tests a week on July 20 (all averages are five-day ones). I've previously written about the relationship between cases and tests: as testing increases, the number of cases as a proportion of the tests (a.k.a. the positivity rate) increases to a point, then plateaus, and finally starts declining. Delhi, for instance, is clearly seeing a decline — as is Mumbai (although the Maharashtra numbers are now being driven to new highs by cases from the larger Mumbai Metropolitan Region, Pune, and other parts of the state). Tamil Nadu is continuing to identify more new cases as it tests more (the state has carried out the most tests in India in absolute terms, around 2 million), but its positivity rate has come down from its peaks and continues to remain in the 10-12% range. On Sunday, for instance, the state saw 4,979 new cases, but carried out 52,993 tests, translating to a positivity rate of 9.39% (a number that is also within the range acknowledged by experts around the world that signifies adequate testing).

Other states, too, are seeing an increase in cases as they test more. Many of them — and this has been my refrain for weeks now — are still not testing enough, though, which is reflected in their positivity rates (either too low, without showing the waxing and the waning that comes with aggressive and adequate testing, as in Uttar Pradesh; or too high, as in West Bengal). Interestingly, in both states, the positivity rate has been increasing. The average daily positivity rate for the past week for Uttar Pradesh was 4.3%, and West Bengal, 14.4%, which is higher than the cumulative positivity rates in the two states — 3.3% for Uttar Pradesh, and 6% for West Bengal.

Bihar is no different — its cumulative positivity rate is 6.96% and its average for the past week, 14.2%. Uttar Pradesh, Bihar, and West Bengal are three of India's four most populous states (at first, third and fourth positions respectively; Maharashtra is in second).

Which means the number of daily cases in India can be expected to increase even more over the next month, maybe even longer.

Vaccine results

Vaccine results shot in the arm for Covid fight STUDY: Oxford-AstraZeneca's Covid vaccine safe, prompts immune response in early tests (Hindustan Times: 2020721)

<https://epaper.hindustantimes.com/Home/ArticleView>

STRONGEST HOPE YET
The report of the Phase 1 trial suggests the vaccine developed by researchers at Oxford University may be the biggest boost yet in the fight against the Covid-19 pandemic

HOW WAS IT TRIALLED?

- The Phase 1 trial involved 1,077 healthy adults aged 18-55 with no history of Covid-19.
- Among these, 543 received the vaccine while 534 people were given a non-Covid vaccine to serve as a control group

WHAT THIS MEANS
The fact the vaccine also triggered a T cell response is an encouraging sign. A T cell response means the vaccine was able to stimulate the part of the immunity that 'learns'.

STILL UNKNOWN
The researchers said more study is needed to check if this vaccine is enough to prevent an infection (it has been shown to lead to a response that can fight the infection)

THE OUTCOME

- A single dose led to antibodies by day 28 and there was a marked increase in Sars-Cov-2 spike-specific T cell response as early as day 7, peaking at day 14 and maintained up to day 56.
- The vaccine caused minor side effects, which could be reduced by taking paracetamol. There were no serious adverse events from the jab.

WHAT NEXT
Phase 2 and 3 trials are now underway to test how the vaccine behaves among people of different age groups and ethnicities as well those who might have some underlying health conditions.

We hope this means the immune system will remember the virus, so that our vaccine will protect people for an extended period. However, we need more research before we can confirm the vaccine effectively protects against Sars-Cov-2 infection, and for how long any protection lasts
- Andrew Pollard, University of Oxford professor

: A vaccine for Covid-19 developed by Oxford University and AstraZeneca was safe and produced an immune response in early-stage clinical trials, data showed on Monday, raising hopes that the world could soon find a way to stop the virus that has taken an unprecedented human and economic toll across the planet.

Published in The Lancet, the peer-reviewed report showed that the 1,077 healthy adults who were given the AZD1222 vaccine did not develop any serious side effects, and their bodies developed an immune response that could protect people for a significant amount of time.

The results came separately as two other vaccine candidates – one being developed in China and the other in Germany – reported positive results from their studies. The Oxford vaccine

candidate is largely considered the front-runner since it has carried out trials on the widest set of people among all.

Adrian Hill, the head of the Oxford University's Jenner Institute that invented the vaccine candidate, said that it was possible that the vaccine would become available by the end of the year, news agency Reuters reported. "There might be a million doses manufactured by September: that now seems like a remarkable underestimate, given the scale of what's going on," said Hill, referring to the manufacturing capability of partner AstraZeneca.

"Certainly there'll be a million doses around in September. What's less predictable than the manufacturing scale-up is the incidence of disease, so when there'll be an endpoint," he added.

The widely followed Oxford vaccine trial is currently at an advanced stage, with studies being carried out in the UK, Brazil and South Africa. A collaboration has already been reached between Oxford, UK government and biopharma major AstraZeneca to produce the vaccine on a mass scale if the final results are also positive.

The Serum Institute of India is one of the global partners for its production, a deal that would involve the Pune-based facility producing 400 million doses that will be distributed across dozens of lower and middle-income countries such as India.

The head of emergencies at the World Health Organization (WHO) hailed the findings about the vaccine as "good news". "We now need to move into larger-scale real-world trials," Dr Michael Ryan told reporters at a news conference in Geneva, while warning: "there's a long way to go". "But it is good to see more data and more products moving into this very important phase of vaccine discovery."

"There is still much work to be done before we can confirm if our vaccine will help manage the Covid-19 pandemic," vaccine developer Sarah Gilbert said, according to Reuters. "We still do not know how strong an immune response we need to provoke to effectively protect against Sars-CoV-2 infection," she said, adding researchers needed to learn more about Covid-19 and continue late stage trials which have already commenced.

More than 165 possible vaccines are in various stages of development with US drugmaker Pfizer and China's CanSino Biologics also reporting positive responses for their candidates on Monday. Last week, another US company – Moderna – had its successful first phase trials reported in the journal NEJM.

To date, Covid-19 has killed about 610,000 people worldwide and infected over 14 million in 196 countries since the outbreak first emerged in China late last year.

Explaining how the Oxford vaccine works, study lead author Andrew Pollard said: "It uses a common cold virus (adenovirus) that infects chimpanzees, which has been weakened so that it can't cause any disease in humans, and is genetically modified to code for the spike protein of the human Sars-CoV-2 virus."

"This means that when the adenovirus enters vaccinated people's cells it also delivers the spike protein genetic code. This causes these people's cells to produce the spike protein, and helps teach the immune system to recognise the Sars-CoV-2 virus," he added. The immune system, Pollard explained, has two ways of finding and attacking pathogens: antibody and T cell responses. "This vaccine is intended to induce both, so it can attack the virus when it's circulating in the body, as well as attacking infected cells. We hope this means the immune system will remember the virus, so that our vaccine will protect people for an extended period," he said.

According to The Lancet, an ideal vaccine should be effective after one or two shots, work in target populations including older adults and those with other health conditions, confer protection for a minimum of six months, and reduce onward transmission of the virus to contacts.

The Lancet said the current trial is too preliminary to confirm whether the new vaccine meets these requirements, but Phase 2 (underway in the UK only) and phase 3 trials to confirm whether it effectively protects against Sars-CoV-2 infection are happening in the UK, Brazil and South Africa.

“This is very positive news. A huge well done to our brilliant, world-leading scientists & researchers at the University of Oxford. There are no guarantees, we’re not there yet & further trials will be necessary – but this is an important step in the right direction,” said UK Prime Minister Boris Johnson.

“We are encouraged by the Phase I/II interim data showing AZD1222 was capable of generating a rapid antibody and T-cell response against Sars-CoV-2. While there is more work to be done, today’s data increases our confidence that the vaccine will work and allows us to continue our plans to manufacture the vaccine at scale for broad and equitable access around the world,” said AstraZeneca’s Mene Pangalos.

Oxford Vaccine (The Asian Age: 2020721)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=14079756>

■ Covid: Bengal to shut down completely for 2 days every week

Oxford vaccine trial raises hope

VINEETA PANDEY
with agency inputs
NEW DELHI, JULY 20

For the world that is eagerly awaiting a Novel Coronavirus vaccine, some positive news came from the University of Oxford where the stage one of human trials have shown promising results. Preliminary results of 1,077 people showed the vaccine induced strong antibody and white blood cells that can fight Covid-19. Scientists said these responses may be even greater after a second dose of injection. If other stages also find success, the vaccine may be available by October.

In India, where rising Coronavirus numbers are a major cause of concern, AIIMS began Phase 1 of human trials of Covid-19 vaccines on Monday, results of which are

AIIMS recruiting volunteers for human trials in Delhi

New Delhi, July 20: AIIMS-Delhi on Monday began the process of recruiting volunteers for conducting human clinical trials of the indigenously developed Covid-19 vaccine candidate Covaxin, the premier medical institute's director Dr Randeep Guleria said. He also said that there is not much evidence of community transmission of Covid-19 happening at the national level. AIIMS-Delhi is

expected in three months.

All records were broken on Monday morning when India's Covid-19 tally zoomed past 11 lakh cases with a whopping

among the 12 sites selected by the Indian Council for Medical Research (ICMR) for conducting Phase I and II randomised, double-blind and placebo-controlled clinical trials of Covaxin.

Meanwhile, the phase-1 human clinical trials for Covaxin also began at the state-run Nizams Institute of Medical Sciences (NIMS) in Hyderabad on Monday.

—PTI

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40,425 new detections in one day. The total cases in India so far is 11,18,043 while overall deaths are 27,497 out of which 681 were recorded in the last

24 hours. In view of rising cases, West Bengal has decided to follow Uttar Pradesh's strategy and announced complete lockdown for two days every week. Of the total new cases, Maharashtra, Tamil Nadu, Karnataka, West Bengal, Assam, Bihar, UP and Andhra Pradesh accounted for 80 per cent. Health economist Riju M. John said such single day spikes are a "worrying trend" and if this trend continues it can put severe pressure on hospital infrastructure and potentially increase the mortality rates.

According to his calculations, daily cases are expected to hit 60,000 to 65,000 by the second half of August. Delhi, which has shown an impressive recovery, now has a recovery rate close to 85 per cent.

■ More on Page 6

Covaxin Human Trials (The Asian Age: 2020721)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=14079785>

AIIMS-Delhi begins recruitment of volunteers for Covaxin human trials

New Delhi, July 20: AIIMS-Delhi on Monday began recruiting volunteers for conducting human clinical trials of the indigenously developed Covid vaccine candidate Covaxin, the premier medical institute's Director Dr Randeep Guleria said.

He also said there is not much evidence of community transmission of Covid happening at the national level.

AIIMS-Delhi is among the 12 sites selected by the Indian Council for Medical Research for Phase I and II randomised, double-blind and placebo-controlled clinical trials of Covaxin.

In phase I, the vaccine would be tested on 375 volunteers and 100 of them, the highest, would be from AIIMS. The second phase, would include around 750 volunteers from all 12 sites, Guleria told reporters.

Phase I of the trial will be done on healthy people, aged between 18 and 55 years, having no co-morbid conditions. Women

Human trials begin at SRM Hospital in TN

Chennai, July 20: The human trials of Covaxin has begun at SRM Medical College Hospital and Research Centre. Volunteers have been screened for this trial. SRM Hospital is the only medical college in Tamil Nadu to be selected for this trial.

Covaxin is developed by the Bharat Biotech International limited in Collaboration with ICMR and NIV (Pune). It has got the nod for human trials from drugs controller of general of India.

with no pregnancy will also be selected for the trial in the first phase, he said.

In the second phase, 750 people will be recruited and they will be between 12 and 65 years of age, he said. Already, around 1,800 people have registered for the trial at AIIMS, he said.

"In the first phase, we see the safety of the vaccine, which is of primary importance, and the dose range is calculated," Guleria said.

In the second phase, "we see how immunogenic it is and that is subsequently followed by phase III, which involves a larger population to assess its efficacy and therapeutic benefit", he said.

Covaxin, being developed by the Hyderabad-based Bharat Biotech in collaboration with ICMR and the National Institute of Virology, recently got the nod for human clinical trials from the Drugs Controller General of India.

Asked when a vaccine would be available, he said it will all depend on whether everything works out in a good manner.

It is possible "we may say the vaccine is safe and then we find it is not giving much efficacy. (Then) we do something more that may take a few more months," he said. — PTI

Vaccine (The Asian Age: 2020721)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=14078780>

THE ASIAN AGE

21 JULY 2020

A vaccine for Covid-19 is the only silver lining

How long will we be living like this in morbid fear of the Coronavirus Sars-Cov-2 even as the pandemic seems to have attained a relentless momentum of its own? The answer, of course, is until an effective vaccine is found. Only a vaccine can restore confidence in a world stricken by a galloping virus that has infected 14.5 million people in a bit over six months and killed 6 lakh of them and is spreading at around a quarter of a million cases a day insidiously into all areas - urban and rural - that health care systems have been overwhelmed. Hospital beds are getting scarce from the San Francisco Bay to Bangalore and way beyond.

A silver lining is to be seen in the progress of expedited vaccine trials. There may be none in 224 vaccine trials that are on to promise a golden one-shot immunity. Trials by Oxford University (in association with Jenner Institute and pharma giant Astra Zeneca) with their high-tech RNA and adenovirus vaccine may be the frontrunner at the moment as it promises the generation of not only antibodies but also virus killing T-cells in the body. A highly anticipated Lancet study on the trial corroborated the vaccine's efficacy saying there were no adverse side-effects either. T-cells are white blood cells that may ensure Covid-19 infected cells are not only detected but also killed off, actively or passively.

A word of caution about the efficacy of vaccines is that they have not eliminated any disease in 100 years except smallpox and, to an extent, polio.

A word of caution about the efficacy of vaccines is that they have not eliminated any disease in 100 years except smallpox and, to an extent, polio. Booster shots may be required to fight this virus. However, a vaccine against Covid-19 is the sole passport to a saner world in which not only can people hope to resume a life without a fear psychosis but also for society to revive livelihoods so that a lack of them will not cause collateral damage by way of job losses and outright hunger and starvation that may get even bigger than virus-induced mortality.

The stress on the success of vaccines and faith in them regardless of what the anti-vaxxers may believe is a clear giveaway that most nations have failed their citizens in the battle against Covid-19. A litany of reasons - from initial scepticism that delayed lockdowns to bureaucratic muddles, faulty models projecting misplaced confidence and hubris or Cassandra-like overstatement, outright sloth or corruption in medical materials procurement and politicians passing the buck and the blame after promising to follow the science - can be listed to prove how the world fell, from the best-equipped and wealthy USA and Europe to many clueless States in India down to poorer Africa and South America.

Given the experience of this universal pandemic, a vaccine may only be the start of a new journey. Getting billions of doses, first to the most vulnerable and the workforce, in orderly fashion may be an even bigger challenge to a leadership that has now veered to the view that God alone can help now. T-cells on their own generate immunity too and prayers may have to be aimed at a new decade, new millennium God who has been residing all along within our own body.

Pandemic (The Asian Age: 2020721)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=14078781>

A temple amid pandemic

Nationalist Congress Party chief Sharad Pawar hit the nail on the head when he said some people think coronavirus will go away after the temple is constructed, referring to the reports that the Ram Janmabhudhi Mandir Trust is planning to launch the construction of the Ram temple at Ayodhya from August 3 to 5 and that it was planning to invite Prime Minister Narendra Modi to the event. According to Mr Pawar, eradication of the coronavirus must be the priority of the government.

A seasoned politician, Mr Pawar knows how parties set their agenda. He has also seen how pandemic Covid-19 has left Indians in misery. The nation is facing some of the most serious challenges it has encountered since independence — the coronavirus, the economic disruption it has caused and the Chinese aggression on the border, and all of them are visiting the nation simultaneously. These are no simple threats; each one is so lethal it can derail the nation's progress. Together, their firepower multiplies manifold. It calls for building a national consensus if India were to survive the triple assault and come out victorious. A government worth the name would be concentrating on building it; for the lack of it could see us a fragmented, defeated people. It is not a surprise that a seasoned politician like Mr Pawar can see through the design of the ruling dispensation foisting the temple project as a façade to save its ineptness in rising up to the challenge.

Several crucial assembly elections are scheduled in the coming months, to start with the one in Bihar in November, and followed by those in West Bengal, Tamil Nadu and Kerala. A government that has not yet shown the grit to address serious national issues would find a comfortable cover in the temple project. All that Mr Pawar has done is to call it out.

Oxford Covid-19 vaccine

Oxford Covid-19 vaccine produces immune response in early trial (New Kerala: 2020721)

<https://www.newkerala.com/news/2020/128852.htm>

Oxford Covid-19 vaccine produces immune response in early trial

The Covid-19 vaccine developed by scientists at the Oxford University produces strong immune responses in both parts of the immune system, showed results of the Phase I/II trial published in The Lancet medical journal on Monday.

The vaccine provoked a T cell response within 14 days of vaccination -- white blood cells that can attack cells infected with the SARS-CoV-2 virus -- and an antibody response within 28 days -- antibodies are able to neutralise the virus so that it cannot infect cells when initially contracted.

The strongest immune response was observed in participants who received two doses of the vaccine. The results showed no early safety concerns.

During the study, participants who received the vaccine had detectable neutralising antibodies, which have been suggested by researchers as important for protection.

These responses were strongest after a booster dose, with 100 per cent of the participants' blood having neutralising activity against the coronavirus, showed the results.

The next step in studying the vaccine is to confirm that it can effectively protect against the SARS-CoV-2 infection.

"The Phase I/II data for our coronavirus vaccine shows that the vaccine did not lead to any unexpected reactions and had a similar safety profile to previous vaccines of this type," said Andrew Pollard, Chief Investigator of the Oxford Vaccine Trial at the Oxford University and co-author of the study..

"The immune responses observed following the vaccination are in line with what previous animal studies have shown are associated with protection against the SARS-CoV-2 virus, although we must continue with our rigorous clinical trial programme to confirm this in humans," Pollard said.

"We saw the strongest immune response in the 10 participants who received two doses of the vaccine, indicating that this might be a good strategy for vaccination," Pollard added.

A UK Phase I/II trial began in April for testing the Oxford coronavirus vaccine ChAdOx1 nCoV-19.

The team started working to develop a vaccine against the global threat that is coronavirus in January 2020.

During the Phase I/II trial, the vaccine was evaluated in more than 1,000 healthy adult volunteers aged between 18 and 55 years in a randomised controlled trial.

A subset of these volunteers --10 people -- received two doses of the vaccine.

Between April 23 and May 21, a total of 1,077 volunteers, received the vaccine ChAdOx1 nCoV-19 or a placebo MenACWY vaccine.

There were no serious adverse health events related to ChAdOx1 nCoV-19.

"These encouraging results support further evaluation of this candidate vaccine in our ongoing large scale Phase III programme, that is still needed to assess the ability of the vaccine to protect people from COVID-19," said Sarah Gilbert, Professor of Vaccinology at the University of Oxford's Jenner Institute and co-author of the study.

The University of Oxford is working with the UK-based global biopharmaceutical company AstraZeneca for further development, large-scale manufacture and potential distribution of the Covid-19 vaccine, with plans for clinical development and production of the Oxford vaccine progressing globally.

"While there is more work to be done, today's data increases our confidence that the vaccine will work and allows us to continue our plans to manufacture the vaccine at scale for broad and equitable access around the world," said Mene Pangalos, Executive Vice President of BioPharmaceuticals Research and Development at AstraZeneca.

Oxford and AstraZeneca are collaborating with clinical partners around the world as part of a global clinical programme to trial the Oxford vaccine.

The global programme is made up of a Phase III trial in the US enrolling 30,000 patients, a paediatric study, as well as Phase III trials in low-to-middle income countries including Brazil and South Africa which are already underway.

Air pollution

Regular exercise helps prevent high BP, even in areas with high air pollution (New Kerala: 2020721)

<https://www.newkerala.com/news/2020/128786.htm>

Regular exercise helps prevent high BP, even in areas with high air pollution

: People who regularly exercise tend to have a lower risk of high blood pressure (BP), even if they live in areas where air pollution is relatively high, say researchers.

The risk-benefit relationship between air pollution and physical activity is an important public concern because more than 91 per cent of people worldwide live in areas where air quality does not meet the World Health Organization (WHO) guidelines.

"Extended outdoor activity in urban areas increases the intake of air pollutants, which can worsen the harmful health effects of air pollution," said study author Xiang Qian Lao from the Chinese University of Hong Kong.

"While we found that high physical activity combined with lower air pollution exposure was linked to lower risk of high blood pressure, physical activity continued to have a protective effect even when people were exposed to high pollution levels," Lao added.

According to the study, published in the journal *Circulation* Journal of the American Heart Association, the message is that physical activity, even in polluted air, is an important high blood pressure prevention strategy.

For the findings, the research team studied more than 140,000 non-hypertensive adults in Taiwan and followed them for an average of 5 years. The researchers classified the weekly physical activity levels of each adult as inactive, moderately active or highly active.

They also classified the level of exposure to fine particulate matter (PM2.5) as low, moderate and high. PM2.5 is the most commonly used indicator of air pollution. The study found that overall, people who are highly active and exposed to low levels of pollution had a lower risk of developing high blood pressure.

People who were inactive and exposed to highly polluted air had a higher high blood pressure risk. Each increase in PM2.5 level was associated with a 38 per cent increase in risk of incident hypertension, whereas each increase in physical activity level led to a 6 per cent lower risk of hypertension. This suggests that reducing air pollution is more effective in preventing high blood pressure.

According to the researchers, the benefits of regular physical activity held up regardless of the pollution level. People who exercised moderately had a four per cent lower risk of high blood pressure than those who didn't exercise. "People who exercised at a high level had a 13 per cent lower risk of high blood pressure than the non-exercisers," the study authors wrote.

Covid-19: Synairgen

Covid-19: Synairgen announces positive results from clinical trial (New Kerala: 2020721)

<https://www.newkerala.com/news/2020/128778.htm>

UK-based Synairgen on Monday announced positive results from a clinical trial of SNG001, which helped reduce the risk of developing severe diseases in hospitalised Covid-19 patients.

The treatment from Southampton-based Synairgen uses a protein called interferon beta which the body produces when it gets a viral infection, the BBC reported. The protein is inhaled directly into the lungs of patients with Covid-19 virus, using a nebuliser, in the hope that it will stimulate an immune response.

"We are all delighted with the trial results announced today, which showed that SNG001 greatly reduced the number of hospitalised COVID-19 patients who progressed from 'requiring oxygen' to 'requiring ventilation'," Richard Marsden, CEO of Synairgen, said in a statement.

According to the company, the trials also showed that patients who received SNG001 were at least twice as likely to recover to the point where their everyday activities were not compromised through having been infected by the novel coronavirus.

The research team conducted the double-blind trial which involved 101 volunteers from nine specialist sites in the UK during the period March 30 to May 27 this year. The results showed the treatment cut the odds of a Covid-19 patient in hospital developing severe disease - such as

requiring ventilation - by 79 per cent. In addition, SNG001 has significantly reduced breathlessness, one of the main symptoms of severe Covid-19, the company claimed.

"This assessment of SNG001 could signal a major breakthrough in the treatment of hospitalised Covid-19 patients," Marsden said. "Our efforts are now focused on working with the regulators and other key groups to progress this potential Covid-19 treatment as rapidly as possible," he said.

Breast cancer cells

New nano drug candidate kills aggressive breast cancer cells (New Kerala: 2020721)

<https://www.newkerala.com/news/2020/128462.htm>

Researchers have developed a new nano-drug candidate that kills triple negative breast cancer cells, which is one of the most aggressive and fatal types of breast cancer.

The study, published in the journal *Advanced Therapeutics*, will help clinicians target breast cancer cells directly while avoiding the adverse, toxic side effects of chemotherapy.

The research team linked a new class of nanomaterials, called metal-organic frameworks, with the ligands of an already-developed photodynamic therapy drug to create a nanoporous material that targets and kills tumour cells without creating toxicity for normal cells.

Metal-organic frameworks are an emerging class of nanomaterials designed for targeted drug delivery. Ligands are molecules that bind to other molecules, the study said.

"Patients with triple-negative cells are especially vulnerable, because of the toxic side effects of the only approved treatment for this type of cancer," said study researcher Hassan Beyzavi from the University of Arkansas in the US.

"We've addressed this problem by developing a co-formulation that targets cancer cells and has no effect on healthy cells," Beyzavi added.

The researcher's focus is on developing new, targeted photodynamic therapy drugs.

As an alternative to chemotherapy -- and with significantly fewer side effects -- targeted photodynamic therapy, or PDT, is a non-invasive approach that relies on a photosensitizer that, upon irradiation by light, generates so-called toxic reactive oxygen species, which kill cancer cells.

In recent years, PDT has garnered attention because of its ability to treat tumours without surgery, chemotherapy or radiation.

Beyzavi's laboratory has specialised in integrating nanomaterials, such as metal-organic frameworks, with PDT and other and therapies. Metal-organic frameworks significantly enhance the effectiveness of PDT.

The research team prepared the nanomaterials and then bio-conjugated them with ligands of the PDT drug to create nanoporous materials that specifically targeted and killed tumour cells with no toxicity in normal cells.

"In addition to cancer treatment, this novel drug delivery system could also be used with magnetic resonance imaging (MRI) or fluorescence imaging, which can track the drug in the body and monitor the progress of cancer treatment," the study authors wrote.

Headache is a blanket term used to describe pain on one or both sides of the head and upper part of the neck. According to the WHO, every adult experiences headache at some point of time in life.

The common causes of headaches are stress and anxiety, emotional distress, irregular eating habits, dehydration, high blood pressure, hot weather etc, Dr Pradeep Mahajan, Regenerative Medicine Researcher, Mumbai told IANSlife.

According to the International Classification of Headache Disorders, there are more than 150 types of headaches. Headaches are called 'primary' when there is no underlying associated condition and 'secondary' when there is an accompanying systemic condition. In primary headaches, the nerves, blood vessels, and muscles in the head and neck region are strained, which may be accompanied by changes in chemical activity in the brain. Migraine, cluster headache, and tension headache fall under this category.

Migrain (New Kerala: 2020721)

Migraine is a type of primary headache, the cause of which is not clearly known; however, studies have suggested a combination of environmental and genetic factors. Migraine tends to run in families and is the sixth highest cause of days lost due to disability (absence from work) worldwide (WHO statistics).

The classical symptoms of migraine are excruciating, throbbing pain on one side of the head (most commonly) that can last anywhere between a few hours to days. Extreme sensitivity to light, sound, smell, and sometimes even touch are hallmarks of the condition. Other symptoms include visual and sensory disturbances (known as aura), nausea, vomiting, and dizziness. Some patients also experience tingling and numbness on the face and extremities.

There have been several theories explaining the pathophysiology of migraines. Some theories proposed that dilation and constriction of blood vessels in the head caused the pain and associated symptoms. Thus, treatments revolved around regulating blood flow. However, it is now known that migraine is an extremely incapacitating neurological disorder involving nerve pathways and brain chemicals.

There are different types of migraine, out of which migraine with aura, migraine without aura (70-90 percent), and chronic migraine are generally encountered. The other forms are

menstrual migraine, hemiplegic migraine, migraine with brainstem aura (basilar type, rare), associated with vertigo, and cyclical vomiting syndrome. Till date, there is no definitive test to diagnose migraine. Diagnosis is based on clinical symptoms by process of elimination of other forms of headaches.

Conventional treatment of migraine involves prescription medications, such as serotonin receptor agonists, tricyclic antidepressants, among others along with drugs to control associated symptoms such as nausea and vomiting (antiemetics). Avoiding certain foods and triggers has also been advised. Nonetheless, these remedies only help to reduce the intensity of an episode of migraine. Cell-based therapy is a new modality that harnesses the intrinsic healing potential of the body for management of various conditions. In the context of migraine and other headaches, studies have shown that stem cell and growth factor activity can target neurogenic inflammation, which is now considered a key phenomenon in such conditions. Moreover, there are reports of decreased endothelial progenitor cell (EPC) function in patients with migraine, which may be associated with circulatory aberrations. Through the self renewal and multi-differentiation potential of mesenchymal cells in our body, it is possible to replenish the pool of EPCs, thus targeting the core pathology of migraine.

With changing times and the varying presentation of diseases, it is essential to understand the pathology of the condition, in order to formulate more effective therapeutic modalities, and not just treat the symptoms. Cell-based therapy is one such modality that utilizes the innate healing potential of the body, and targets the underlying molecular mechanisms of diseases, thereby providing long-term safe and effective results.

Cononavirus Vaccine (Navbharat Times: (New Kerala: 2020721)

https://epaper.navbharattimes.com/imageview_2829_73498_4_13_21-07-2020_0_i_1_sf.html

नजर न लगे इस टीके को, कोरोना पर पहली जीत शुरुआती नतीजों में खरी उतरी ऑक्सफर्ड की वैक्सीन

■ पीटीआई, लंदन

कोरोना के लिए बनाई जा रही ऑक्सफर्ड यूनिवर्सिटी की वैक्सीन के शुरुआती नतीजे अच्छे मिले हैं। जिन सैकड़ों लोगों पर ट्रायल किया गया, उनमें अच्छा इम्यून रिसर्पॉन्स देखा गया। साइड इफेक्ट हल्के देखे गए जो पैरासिटामोल से ठीक हो गए। रिसर्चर्स का कहना है कि इस साल के अंत तक वे यह तय करने में कामयाब होंगे कि क्या वैक्सीन का प्रयोग आम लोगों पर हो सकता है। वैक्सीन को अगले चरण के ट्रायल के लिए ओके कर दिया गया है।

लांसेट में इस वैक्सीन के पहले और दूसरे फेज के नतीजों को छपा गया है। वैक्सीन ने दोतरफा फायदा दिखाया। शरीर में एंटीबॉडीज भी बनाईं और इम्यून सिस्टम को मजबूत करने का भी काम भी किया। ये एंटीबॉडीज ही कोरोना वायरस का सफाया करने का काम करेंगी। इस बीच दिल्ली में एम्स के डायरेक्टर डॉ रणदीप गुलेरिया ने बताया कि कोरोना की वैक्सीन का ह्यूमन ट्रायल चल रहा है। पहले फेज का ट्रायल 18-55 साल के लोगों पर होगा।



वैक्सीन के बेहद हल्के साइड इफेक्ट दिखे जो पैरासिटामोल से ठीक हो गए।

कुल 1107 लोगों पर किए गए ट्रायल में नजर आया दोतरफा फायदा।

साल के अंत तक तय होगा कि क्या इंसानों को दे सकते हैं वैक्सीन।

एम्स के डायरेक्टर बोले दिल्ली का पीक खत्म

एम्स के डायरेक्टर डॉ रणदीप गुलेरिया ने कहा है कि देश में कोरोना का कम्युनिटी प्रसार हो रहा है, इसके पर्याप्त सबूत नहीं हैं लेकिन देश में कई हॉटस्पॉट मौजूद हैं, जिससे कहा जा सकता है कि वहां लोकल संक्रमण हो रहा है। दिल्ली ने अपने चरम को छू लिया है। यही वजह है कि यहां अब केस कम होने लगे हैं।

कोरोना को हरा काम पर लौटे सत्येंद्र जैन

दिल्ली के स्वास्थ्य मंत्री सत्येंद्र जैन ने कोरोना को हराने के बाद सोमवार को फिर से कार्यभार संभाल लिया। मुख्यमंत्री अरविंद केजरीवाल ने ट्वीट कर यह जानकारी दी। 17 जून को जैन को कोरोना वायरस से संक्रमित होने की पुष्टि हुई थी। उनके हेल्थ विभाग की जिम्मेदारी मनीष सिसोदिया संभाल रहे थे।

**11 लाख पर केस,
एक दिन में US
से ज्यादा मौतें**

देश में कोरोना संक्रमण के नए केसों में तेजी बरकरार है। सोमवार को रेकॉर्ड 40,425 केस आने के साथ ही कुल मामलों की संख्या 11,18,043 पर पहुंच गई। एक दिन में मौत के मामले में भारत ने अमेरिका को भी पीछे छोड़ दिया। देश में 681 लोगों की मौत हुई, जबकि अमेरिका में 392 लोगों ने जान गंवाई। इस महीने के 20 दिनों में अब तक कोरोना के 5,51,203 केस सामने आ चुके हैं यानी रोजाना का औसत 27,560 केस का है। इस बीच दिल्ली में कोरोना के नए मामलों में गिरावट देखने को मिल रही है। सोमवार को 954 नए मामले आए और 35 जानें संक्रमित होने की पुष्टि हुई थी। उनके हेल्थ विभाग की जिम्मेदारी मनीष सिसोदिया संभाल रहे थे। ▶▶पेज 3, 10

Pandemic (Hindustan: 2020721)

https://epaper.livehindustan.com/imageview_207357_53660332_4_1_21-07-2020_3_i_1_sf.html

आफत : स्वास्थ्य मंत्री सत्येंद्र जैन ने कहा- दिल्ली में महामारी नियंत्रित, लेकिन सतर्क रहना जरूरी

कोरोना के नए दौर की आशंका

नई दिल्ली | बरिष्ठ संवाददाता

कोरोना से जंग में दिल्ली बेहतर कर रही है। इसके बावजूद स्वास्थ्य मंत्री सत्येंद्र जैन ने सोमवार को आशंका जताई कि राजधानी में संक्रमण का दूसरा और तीसरा दौर आ सकता है। इसलिए हमें सतर्क रहने की जरूरत है। वहीं, देश में 24 घंटे के भीतर आरिफॉर्ड 40,425 नए मामलों ने चिंता और बढ़ा दी है।

केंद्र सरकार तय करेगी : कोरोना को मात देकर एक माह बाद स्वास्थ्य मंत्री सत्येंद्र जैन काम पर लौटे। सामुदायिक संक्रमण पर उन्होंने कहा कि यह तय करना केंद्र का काम है, लेकिन जिस तरह देशभर में संक्रमितों की संख्या 10 लाख को पार कर चुकी है, उससे यह कहा जा सकता है कि कहीं न कहीं ऐसा हुआ है।

पूरी तैयारी : उन्होंने कहा कि अच्छी बात है कि दिल्ली में कोरोना नियंत्रित हुआ है। फिर भी हमें लापरवाही नहीं बरतनी चाहिए। इससे निपटने में दिल्ली सरकार अपनी पूरी तैयारी रखेगी।

रोजाना योग करें : कोरोना से जंग जीतकर लौटे जैन ने कहा कि योग इससे

दिल्ली में...

हफतेभर से 8% के करीब बनी हुई है दर

दिन	मामले	टेस्ट	संक्रमण दर
20 जुलाई	954	11470	8.3%
19 जुलाई	1211	20206	5.9%
17 जुलाई	1462	20462	7.14%
16 जुलाई	1652	20225	8.16%
15 जुलाई	1667	22538	7.39%
13 जुलाई	1246	12171	10.23%

देश में...

रिफॉर्ड 40 हजार से अधिक केस

24 घंटे में रिफॉर्ड 40,425 नए मामले सामने आए। 681 लोगों की मौत हुई। आंकों के लिहाज से भारत में ब्राजील से दोगुने मामले और अमेरिका से ज्यादा मौतें दर्ज की गईं। हालांकि, मृत्युदर घटकर 2.46 प्रतिशत रह गई है।

लड़ने का सबसे बेहतर उपाय है। रोज कम से कम 20 मिनट प्राणायाम से शरीर में ऑक्सीजन की कमी नहीं होती। लोगों को मानसिक तनाव लेने की जरूरत नहीं है। वह हंसते रहें तब भी स्वस्थ रहेंगे।

24 घंटे में 954 मामले : राजधानी में सोमवार को कोरोना के 954 नए मरीज सामने आए। 27 मई के बाद यह पहली बार है जब कोरोना के मरीजों की संख्या एक हजार से नीचे आई है, यानी

54 दिन बाद ऐसा हुआ है। इस दौरान करीब 1784 मरीज स्वस्थ भी हो गए। दिल्ली में कोरोना से स्वस्थ होने वाले मरीजों की दर 80 फीसदी को पार कर चुकी है।

इधर, एन्स निदेशक का दावा...

दिल्ली ने अपने चरम को छू लिया है, यही वजह है कि यहां केस कम होने लगे हैं, लेकिन कई क्षेत्र ऐसे हैं जिसने अपने पीक को अभी नहीं छुआ है, इसलिए वहां अभी भी बढ़ रहे हैं। वे कुछ दिनों में अपने चरम पर होंगे। -रणदीप गुलेरिया, एम्स निदेशक

राज्यों से

1 यूपी में 46 की मौत 1924 नए मामले

यूपी में कोरोना वायरस (कोविड-19) के संक्रमण की रफतार तेजी से बढ़ रही है। पिछले 24 घंटे में प्रदेश में कोरोना के 1924 नए मामले सामने आए हैं तो 46 गंभीर मरीजों की मौत हो गई है। > पेज 07

2 उत्तराखंड में 127 मरीज

राज्य में सोमवार को कोरोना के 127 मरीज मिले। अब कोरोना मरीजों की कुल संख्या 4642 पहुंच गई है। 96 मरीज डिस्चार्ज कर दिए गए। > पेज 07

3 बिहार में आठ की मौत

बिहार में 1076 नए कोरोना केस मिले। इनमें 19 जुलाई को 349 व 18 जुलाई व इसके पूर्व 727 नए संक्रमितों की पहचान की गई। वहीं, 8 की मौत हो गई। > पेज 07

Covaccine Trial (Hindustan: 2020721)

https://epaper.livehindustan.com/imageview_207357_53658448_4_1_21-07-2020_3_i_1_sf.html

कामयाबी: ऑक्सफोर्ड के टीके का परीक्षण सफल, दिसंबर तक आएगा

लंदन | एजेसी

ऑक्सफोर्ड की कोविड-19 वैक्सीन इंसानों पर पहले दो चरण के परीक्षणों में खरी उतरी है। परीक्षण का तीसरा व्यापक चरण भी सफल रहा तो दिसंबर तक वैक्सीन बाजार में आ सकती है।

ऑक्सफोर्ड यूनिवर्सिटी ब्रिटिश दवा निर्माता कंपनी एस्ट्राजैका के सहयोग से 'वैक्सीन एजेडी1222' तैयार रही है। मेडिकल जर्नल लैंसेट ने सोमवार को कहा कि जिन 1107 व्यक्तियों को यह टीका दिया गया, उनमें से ज्यादातर में वायरस निष्क्रिय करने की प्रतिरोधी क्षमता पैदा हुई।

ऑक्सफोर्ड यूनिवर्सिटी के जेनर

भारत में अगले माह से ट्रायल

भारत में भी ऑक्सफोर्ड के टीके का परीक्षण होगा। यह फेज-3 से होगा जो अगस्त से शुरू होगा। एस्ट्राजैका ने सस्ता टीका बनाने के लिए भारत के सीरम इंस्टीट्यूट से करार किया है। सीरम एक टीके की एक अरब खुराक तैयार करेगी।

इंस्टीट्यूट के निदेशक डॉ. एड्रियन हिल ने कहा कि 23 अप्रैल से 21 मई के बीच टीका लेने वाले 18 से 55 वर्ष के करीब सभी लोगों में दोहरी प्रतिरोधी क्षमता उत्पन्न हुई। उनमें टीके से संक्रमण को रोकने वाले एंटीबॉडी उत्पन्न हुए, साथ ही वायरस से लड़ने वाली कोशिकाएं टी-सेल भी सक्रिय हुईं। टी-सेल वायरस

एमएस में कोवैक्सीन परीक्षण

दिल्ली एम्स ने देश में विकसित टीके 'कोवैक्सीन' के मानव परीक्षण के लिए सोमवार को स्वयंसेवियों की भर्ती शुरू कर दी। एम्स निदेशक रणदीप गुलेरिया ने कहा, मानव परीक्षण का चरण शुरू हो चुका है।

के संक्रमण से कई साल तक लड़ सकती हैं। जो बेहतर संकेत है।

हिल ने कहा कि दिसंबर तक वैक्सीन की सफलता आंकने का पर्याप्त डाटा मिलने के साथ ही तय हो जाएगा कि इसका बड़े पैमाने पर उत्पादन शुरू करना है या नहीं।

➤ तीसरे चरण का ट्रायल पेज 07