



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Friday 2020925

Phone-based saliva test

Indian-American-led research team wins \$100,000 NIH prize for phone-based saliva test (The Tribune: 2020925)

<https://www.tribuneindia.com/news/health/indian-american-led-research-team-wins-100-000-nih-prize-for-phone-based-saliva-test-146326>

According to Saurabh Mehta, technologies using salivary biomarkers could revolutionise how conditions such as malaria and iron deficiency are identified

Indian-American-led research team wins \$100,000 NIH prize for phone-based saliva test
Photo for representation

A research team led by an Indian-American has won \$1,00,000 prize for developing a quick, non-invasive, mobile phone-based system to detect infectious diseases, inflammation and nutritional deficiencies in saliva.

The Cornell researchers' team led by Saurabh Mehta was awarded the National Institutes of Health (NIH) Technology Accelerator Challenge prize that encourages the development of new, non-invasive diagnostic technologies important for global health.

According to Mehta, technologies using salivary biomarkers could revolutionise how conditions such as malaria and iron deficiency are identified and addressed, especially in settings where access to primary health care and traditional, laboratory-based tests is limited.

“This concept provides non-invasive, rapid and accurate results anywhere in the world. A breakthrough in such mobile diagnostics could provide untold health benefits for vulnerable populations globally,” Mehta said.

For the group's saliva-based test, a small 3D-printed adapter is clipped to a mobile phone and synced with a mobile app. The app uses the phone's camera to image test strips to detect malaria, iron deficiency and inflammation, with results in under 15 minutes.

The proposal builds on the FeverPhone and NutriPhone platforms developed by the team at Cornell's Institute for Nutritional Sciences, Global Health and Technology (INSiGHT). The technologies, funded by the NIH and the National Science Foundation, evaluate infections and nutritional status using blood.

“These types of potentially world-changing innovations are only possible when you foster strong multidisciplinary research and a culture of innovation, such as we do here at Cornell,” said David Erickson, another team member.

The team was led by Mehta, associate professor of global health, epidemiology and nutrition in the Division of Nutritional Sciences, in the College of Human Ecology (CHE), and the Department of Global Development in the College of Agriculture and Life Sciences (CALS).

Coronavirus vaccine

Chinese company says coronavirus vaccine ready by early 2021 SinoVac CEO says he personally has been given the experimental vaccine (The Tribune: 2020925)

<https://www.tribuneindia.com/news/health/chinese-company-says-coronavirus-vaccine-ready-by-early-2021-145976>

Chinese company says coronavirus vaccine ready by early 2021

A display shows packages of vaccine candidate for SARS-CoV-2 by Sinovac Biotech during a government-organised media tour showcasing the company's development of a coronavirus disease vaccine candidate in Beijing, on September 24, 2020. Reuters

Chinese pharmaceutical company on Thursday said the coronavirus vaccine it is developing should be ready by early 2021 for distribution worldwide, including the United States.

Yin Weidong, the CEO of SinoVac, vowed to apply to the US Food and Drug Administration to sell CoronaVac in the United States if it passes its third and final round of testing in humans. Yin said he personally has been given the experimental vaccine.

“At the very beginning, our strategy was designed for China and for Wuhan. Soon after that in June and July we adjusted our strategy, that is to face the world,” Yin said, referring to the Chinese city where the virus first emerged.

“Our goal is to provide the vaccine to the world, including the US, EU and others,” Yin said.

Stringent regulations in the US, European Union, Japan and Australia have historically blocked the sale of Chinese vaccines. But Yin said that could change.

SinoVac is developing one of China's top four vaccine candidates along with state-owned SinoPharm, which has two in development, and military-affiliated private firm CanSino.

More than 24,000 people are currently participating in clinical trials of CoronaVac in Brazil, Turkey, and Indonesia, with additional trials scheduled for Bangladesh and possibly Chile, Yin said.

SinoVac chose those countries because they all had serious outbreaks, large populations and limited research and development capacity, he said.

He spoke to reporters during a tour of a SinoVac plant south of Beijing. Built in a few months from scratch, the plant is designed to enable SinoVac to produce half a million vaccine doses a year. The bio-secure facility was already busy on Thursday filling tiny bottles with the vaccine and boxing them.

The company projects it will be able to produce a few hundred million doses of the vaccine by February or March of next year.

SinoVac is also starting to test small doses of CoronaVac on children in the three countries because of the high rate of infection among young people there.

Yin said the company would prioritize distribution of the vaccine to countries hosting human trials of CoronaVac.

While the vaccine has not yet passed the phase 3 clinical trials, a globally accepted standard, SinoVac has already injected thousands of people in China under an emergency use provision.

Yin said he was one of the first to receive the experimental vaccine months ago along with researchers after phase one and two of human trials showed no serious adverse effects. He said that self-injecting showed his support for CoronaVac.

“This is kind of a tradition of our company,” Yin said, adding that he had done the same with a hepatitis vaccine under development.

Earlier this year, China permitted “emergency use” of vaccine candidates for at-risk populations like border personnel and medical workers if companies could show “good safety and good antibodies” from tests of about 1,000 people, Yin said.

SinoVac received that approval in June along with SinoPharm and CanSino, and was able to provide tens of thousands of doses of CoronaVac to Beijing’s municipal government, Yin said.

SinoVac employees qualified for emergency use of the vaccine because an outbreak inside the company would cripple its ability to develop a vaccine, he said.

About 90% of the company’s staff have received it.

“We are confident that our research of the COVID-19 vaccines can meet the standards of the US and EU countries,” Yin said. — AP

DengiAll vaccine

Panacea Biotec completes Phase I/II study of DengiAll vaccine (The Tribune: 2020925)

<https://www.tribuneindia.com/news/health/panacea-biotec-completes-phase-i-ii-study-of-dengi-all-vaccine-145904>

DengiAll is a single-dose live-attenuated tetravalent vaccine

Panacea Biotec completes Phase I/II study of DengiAll vaccine
Photo for representational purpose only.

Drug firm Panacea Biotec on Thursday said it has successfully completed Phase I/II clinical study to evaluate the safety and immunogenicity of its DengiAll vaccine.

According to the World Health Organization, dengue represents one of the 10 biggest global health threats and it is critical to have access to a safe and effective vaccine candidate that can reduce the devastating impact of dengue fever in endemic regions, Panacea Biotec said in a BSE filing.

DengiAll is a single-dose live-attenuated tetravalent vaccine. “It induced robust, balanced neutralising antibody responses against all the four dengue virus serotypes”, it said.

“DengiAll’s Phase I/II study results are even more important in the context of the COVID-19 pandemic. Co-infection of dengue and COVID-19 in a dengue-endemic India may complicate approach to treatment and strain health care infrastructure,” Panacea Biotec MD Rajesh Jain said.

The company has already approached the Drugs Controller General of India (DCGI) to seek accelerated review of its data to bring DengiAll to market quickly and reduce burden on the country’s healthcare infrastructure, he added.

Shares of Panacea Biotec were trading at Rs 196.80 per scrip on BSE, up 4.99 per cent from its previous close. PTI

Antigen testing protocol

Key gap in antigen testing protocol prompts rethink (Hindustan Times: 2020925)

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

Six days of mayhem on Dalal Street

BSE Sensex fell over 2,700 points over the last six days of trading as Indian markets bled amid a global selloff



₹11.31 lakh cr
total investor value lost over six days

FACTORS THAT DRAGGED THE MARKET DOWN

- 1 Fears of second wave of Covid-19 infections in Europe and possible lockdown
- 2 Lack of stimulus from the central bank in United States
- 3 Slide in value of the rupee

DAY'S IMPACT

Worst-hit stocks

-4.45%
IT companies

-4.25%
Telecom

-3.56%
Auto

Least impacted stocks

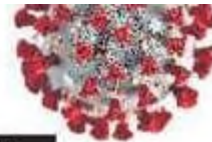
-0.93%
FMCG

-1.1%
Capital goods

-1.9%
Power

→ P17

Tracking the virus



WORLD

32,246,101

CASES

984,175

DEATHS

INDIA

CASES

5,816,048

(+85,909)

DEATHS

92,323

(+1,147)

WORST-HIT STATES

Maharashtra	1,282,963
Andhra Pradesh	654,385
Tamil Nadu	563,691
Karnataka	548,557
Uttar Pradesh	374,277

DELHI

CASES 260,623 (+3,834)

DEATHS 5,123 (+36)

CASES LAST 5 DAYS



India data compiled by covid19india.org and cross-checked from inputs by HT's correspondents and news agencies

An analysis of Delhi's Covid-19 testing data by the health department showed that, on Wednesday, 1,400 symptomatic people who tested negative in rapid antigen tests (RATs) were not administered the gold standard RT-PCR tests as follow up, highlighting a glaring gap in the Capital's testing protocol.

On Thursday, the Delhi government directed all districts in the Capital to ensure no lapses take place in testing people with symptoms of the coronavirus disease (Covid-19) through the

Reverse Transcription-Polymerase Chain Reaction procedure, considered the most accurate method of detecting the viral infection.

Special secretary (health and family welfare) Udit Prakash Rai issued the directive.

RATs, while fast (results are in within the hour as compared to a minimum of 24 hours for RT-PCR ones), have a high propensity to give out false negatives -- which means they identify an infected person as uninfected. HT has repeatedly stressed that these tests should be used only in certain contexts (such as in containment zones, or in airports or railway stations), but many states and Delhi continue to use them. Uttar Pradesh and Bihar, for instance, once laggards in testing, have conducted millions of tests, many of them RATs. Delhi too continues to depend heavily on them. In the week to Thursday, RATs accounted for 81.5% of the total 386,924 tests conducted in the Capital.

While experts suggest that if RATs must be used, those symptomatic individuals who test negative must undergo a RT-PCR test (or another accurate molecular test), this is not foolproof either -- at least 40% of those infected with Sars-Cov2 are asymptomatic.

“Total 1,437 antigen negative symptomatic persons have not undergone RT-PCR. Kindly ensure that this is made NIL from today (Thursday). This means from today there should be no antigen negative symptomatic case who is not tested for RT-PCR,” read Rai’s communication, sent to all district magistrates (DMs) and chief district medical officers (CDMOs).

HT could not immediately ascertain if similar data is available for more days.

The directive also had a district-wise break-up of the number of cases recorded on Wednesday of symptomatic people who tested negative in rapid antigen tests and whose samples were not tested subsequently through RT-PCR. According to the data, north-west Delhi, which also has the maximum number of active Covid-19 cases (over 5,000) in the city, had 870 cases on Wednesday alone where symptomatic antigen negatives were not followed up with an RT-PCR test. North-west Delhi was followed by the south-west district, where 258 symptomatic persons were not administered RT-PCR tests after testing negative for Covid-19 in rapid antigen tests.

“I guess more than 80% of all tests being conducted in Delhi everyday are rapid antigen tests. Heavy reliance on antigen tests is never advisable,” said Dr Lalit Kant, former head of epidemiology and infectious disease at the Indian Council of Medical Research. “Rapid antigen test is only a test of choice for routine surveillance in containment zones and screening at the point of entry. In all other situations, RT-PCR tests should be given priority. Merely increasing the testing through rapid antigen tests will not give a true picture of Delhi’s real positivity rate.”

A Delhi government spokesperson confirmed that a specific direction was issued by the state Directorate General of Health Services (DGHS) to all field teams conducting rapid antigen tests that there should be no lapse in conducting follow-up RT-PCR tests. “Medical officers of each of the 11 districts have been asked to strictly ensure that no symptomatic RAT negative is let go without an RT-PCR test. The DGHS has issued necessary directions in this regard,” the spokesperson said.

In fact, the medical officer has been asked to go ahead with an RT-PCR procedure without necessarily having to wait for the result of the antigen test.

“Earlier the field teams used to wait until the results came and if negative many people would just leave the centre immediately, despite officials asking them to wait. Now symptomatic people can be tested with RT-PCR right there without waiting for the antigen results,” the spokesperson said.

A senior health department official said on condition of anonymity that the Delhi government is also working on a plan to increase the number of RT-PCR testing laboratories. The official added that the Delhi government is awaiting approvals from the Union government on the plan.

“Daily RT-PCR tests have now crossed the 10,000 mark, while the existing combined capacity of all the 54 labs in Delhi is around 11,000 tests per day. Modalities are being worked out to scale up RT-PCR sample processing capacity further. It is in various approval stage from the Central government,” said the official. To be sure, Delhi still doesn’t do more than 10,000 RT-PCR tests every day. In the week to Thursday, for instance, this level has been breached four times.

Sandeep Mishra, district magistrate of the north-west district, the one with the highest case load, said his administration was now ensuring that access to an RT-PCR test is as easy in the district as to the rapid antigen test. “We are ensuring [that] both RAT and RT-PCR facility should be available at all testing centres.”

BM Mishra, DM of south district, said: “They (health officials) do not let people leave the test centres at any cost until the RAT results come. As soon as the result comes negative on RAT, a fresh sample for RT-PCR is also collected from the symptomatic person.”

Urban and rural testing

What data tells us about urban and rural testing?(Hindustan Times: 2020925)

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

India’s rural districts, home to nearly 74% of the country’s population, accounted for 65% of all Covid-19 tests conducted in August, and 55% of new cases reported that month. Urban districts, on the other hand, are home to 14% of the population and accounted for nearly 22% of all tests conducted in August, with 28% of the cases reported that month coming from them. The government this week released in Parliament data on the number of Covid-19 tests conducted in each of India’s 734 districts in August. This is the first time that district-level data on testing from across the country was made public.

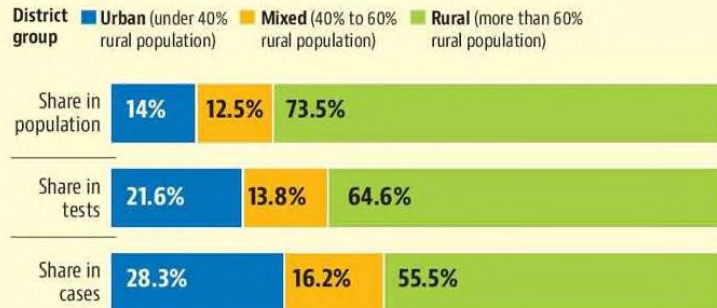
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1 Rural areas have a disproportionately lower share of tests, and an even lower share of cases

This analysis has divided India's districts into three large groups – urban districts (less than 40% rural population), mixed districts (40% to 60% rural population) and rural districts (more than 60% rural population). The proportion of the rural population is based on the 2011 Census (the latest data available). Data on the number of cases has been sourced from How India Lives (11 revenue districts of Delhi have been taken as one single unit because the Delhi government does not release a district-wise breakup of confirmed infections). The number of tests conducted per million people in rural districts was 14,880, compared with 26,115 tests per million in urban districts.

Share of districts (by % rural population)

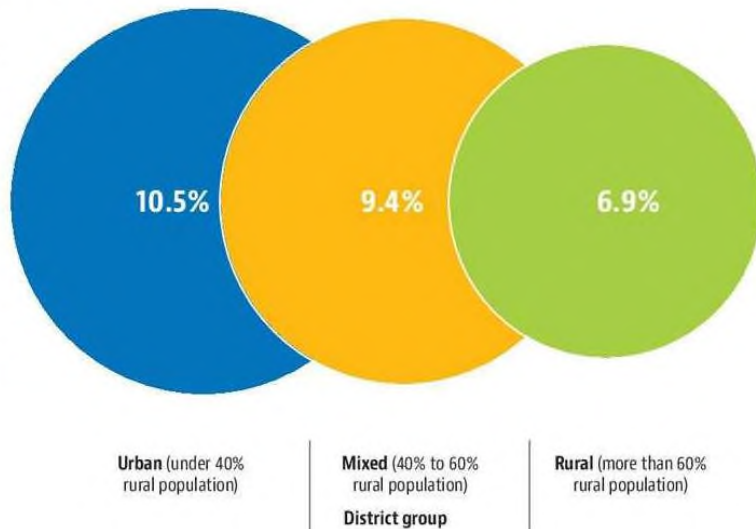


2 Lower positivity rate indicates that rural areas are better covered by Covid-19 testing

Nationally, about 8% tests in August came out positive. But this figure was 10.5% in urban areas and 6.9% in rural areas. Both were higher than what is recommended by the World Health Organisation, which says the positivity rate from a region that has a comprehensive testing programme should be at or below 5% for at least two weeks before it can be considered that the outbreak is under control.

To be sure, the government has not given a breakup of tests by method. A Reverse Transcription-Polymerase Chain Reaction (or RT-PCR) test, seen as the gold standard in Covid-19 testing, tends to result in a higher positivity rate because the other common method, the rapid antigen test, may throw up false negatives for people who are infected with a low viral load. The government said on August 4 that about a quarter of all Covid-19 tests across the country were rapid antigen tests. A greater share of rapid antigen tests in a region may lead to a lower positivity rate there. Anecdotally, Bihar and Uttar Pradesh, which account for 18% of all rural districts in the country, depend heavily on antigen tests. Some predominantly urban areas, such as Delhi, also use a disproportionate number of antigen tests.

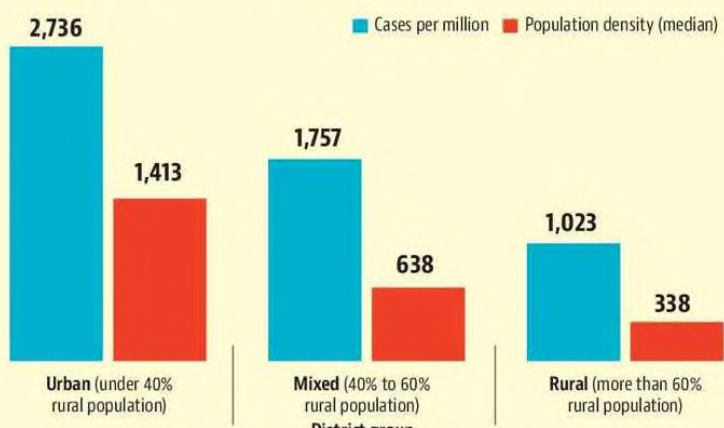
Test positivity rate in India's districts (by proportion of rural population)



3 Urban districts have 2.7 times as many cases per million residents than in rural districts

In August, rural areas reported 1,023 confirmed cases per million people compared to 2,736 confirmed cases per million people in urban areas. While it is possible that the infection spreads at a slower rate in the rural areas because of the low population density (people per square kilometre) there, it is equally possible that the results have been skewed by states such as Uttar Pradesh and Bihar (which have a large proportion of rural population) depending largely on inaccurate antigen tests. To be sure, the population density metric ought to be read with care. For example, Bihar's Vaishali district (more than 80% rural population) has a population density of 2,164, more than Haryana's Gurugram (1,267), which has 31% rural population. The positivity rate in Vaishali was 2.8% compared to 4.3% in Gurugram – but this again, may be because of Bihar's dependence on antigen tests which lower

Cases per million & median population density



Covid-19: What you need to know today (Hindustan Times: 2020925)

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

Like three other companies with Covid-19 vaccine candidates undergoing Phase 3 clinical trials, Johnson & Johnson, on Wednesday, made public the elaborate documentation of its clinical testing protocol (it has the largest Phase 3 trials of all candidates yet, around 60,000 people). This unprecedented level of disclosure — it's never happened before, so this is an apt and perhaps unprecedented use of the oft-misused word — comes amidst fears that vaccine developers could cut corners in their race to develop a shot for the coronavirus disease, or allow themselves to be pressured by the political establishment into launching vaccines that are not ready. Vaccines have to prevent infection, reinfection and, most importantly, be safe — one reason why it usually takes years to create one. Sure, the crisis posed by the pandemic has shortened the timeline, perhaps permanently. If a vaccine for Covid-19 is available by the middle of next year — and it is definite that at least one will be — then there is a high likelihood of no new vaccine for any disease ever taking the 7-10 years it used to in the BC (before Covid) era. But it still needs to check boxes on safety and efficacy.

All four companies — Pfizer, Moderna, AstraZeneca, and Johnson & Johnson — are also signatories to a pledge to ensure “high ethical standards and sound scientific principles”, and to not seek regulatory approval for their vaccines till clinical trials on tens of thousands of individuals show them (the vaccines) to be effective and safe. Five other companies, GlaxoSmithKline, Merck, Novavax, BioNTech and Sanofi, also signed this pledge. Among these, BioNTech is working with Pfizer on the vaccine.

The vaccine, like the mask, has become a political issue in the US. After the country's drug regulator, the Food and Drug Administration, said it is considering tightening its vaccine approval process to include outside experts, US President Donald Trump, who has been pushing for a vaccine ahead of the November election, said on Wednesday that this sounded like “a political move”. For good measure, he added that if FDA makes the changes, the “White House” may or may not “approve it”.

The potential consequences of either vaccine developers or regulators giving in to political pressure could be disastrous, which is why the pledge and the disclosures — with four large companies having released theirs, other vaccine developers have no option but to share their own protocols; not doing so will likely prove controversial and also cast a shadow over the trials themselves — are important.

A reading of the protocols shows (warning: they make for heavy reading) that the J&J trial is the only one measuring the efficacy of the vaccine in preventing severe and critical cases of Covid-19. As pointed out by Peter Doshi and Eric Topol in an opinion piece in The New York Times earlier this week, the protocols for the clinical studies of the Moderna, AstraZeneca and Pfizer vaccine candidates say that “a vaccine could meet the companies' benchmark if it lowered the risk of mild Covid-19, but was never shown to reduce moderate or severe forms

of the disease, or the risk of hospitalisation, admissions to the intensive care unit, or death”. Writing in The Washington Post, William Haseltine, a former Harvard Medical School professor who now runs a health think tank, flagged the same concern. “...the protocols should heighten anxiety rather than alleviate it. A close reading suggests the clinical trials have been designed to ensure the greatest possible success for these candidates — and could overstate their effectiveness.” Haseltine was commenting on the Moderna and Pfizer clinical study protocols, the first to be released.

There is also another big difference between the Johnson & Johnson vaccine and the other three — it requires refrigeration but does not need to be frozen. Ensuring things stay frozen during transportation and storage presents a significant challenge, especially in many developing countries (including India, where the problem is compounded by sheer size) (see page 9).

Over the next few weeks and months, more vaccine candidates are expected to launch their Phase 3 trials. According to the HT Vaccine Tracker, there are 18 vaccines in Phase 2 trials. There are another 6 in Phase 3, and 5 have been approved for emergency use.

Covid Cases (The Asian Age: 2020925)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=15124984>

■ 3,834 + ve cases, 36 deaths in 24 hours ■ Death count rises to 5,123 Covid cases will lessen soon: Kejri

AGE CORRESPONDENT
NEW DELHI, SEPT. 24

Chief minister Arvind Kejriwal on Thursday said that the second wave of Covid-19 in Delhi has perhaps hit its peak and experts feel that the cases of infection will lessen in the coming days in the national capital.

Delhi recorded 3,834 new Covid-19 cases. Of the total 2,60,623 patients, 31,125 are active and 2,24,375 patients were recovered. With 36 deaths in the last 24 hours, total death counts rose to 5,123.

Mr Kejriwal said that the government is "keeping its fingers crossed" and hoped that the Covid-19 cases will "gradually" lower due to steps taken by the AAP dispensation. The national capital has been witnessing a surge in the number of coronavirus cases in the last few days.

"All the experts believe that the second wave (of coronavirus), which had come in Delhi, appears to have perhaps hit its peak. Now, it will lower in the coming days," Mr Kejriwal told reporters.

The chief minister pointed out that the Covid-19 cases in the city were by and large under control between July 1



Arvind Kejriwal

and August 17 and on an average, 1100-1200 new cases were being reported every day. "From August 17, the cases rose slightly from around 1,100 to 1,500 and as a responsible government, we did not take any risk and immediately scaled up testing from around 20,000 to 60,000 per day. The best way to defeat coronavirus is to conduct aggressive testing to identify and isolate positive cases," said Mr Kejriwal.

"The coronavirus cases have increased in Delhi because testing was massively scaled up. The cases were around 4,500 on September 16 which have now started coming down and currently there are around 3,700 cases (daily)," he said.

According to Mr Kejriwal, had the testing would have scaled down to previous level of daily 20,000 tests, the cases would have come down to around 1,500 per day.

Higher recoveries in Covid-19 cases for 6th day on the trot

AGE CORRESPONDENT
NEW DELHI, SEPT. 24

More recoveries than fresh cases of novel coronavirus continue to be recorded even as the total number of cases crossed 57.32 lakh.

While there were 86,508 new cases of Covid-19 in the last 24 hours, another set of 87,374 persons recovered at the same time. With this, the total number of recoveries in the country is now 46.75 lakh and the recovery rate is 81.55 per cent. This is the sixth consecutive day when higher recoveries than fresh cases was registered.

"As India records more recoveries than the new cases, the gap between recovered cases and the active cases is continuously widening. The recovered cases exceed the active cases (9.66 lakh) by more than 37 lakh. This has also ensured that the active caseload accounts for merely 16.86 per cent of the total positive cases. This has sustained on its steady declining path," Union health ministry officials said.

COVID WATCH

57.32 LAKH
CASES ACROSS NATION

46.75 LAKH
PEOPLE CURED SO FAR

◆ **IN THE last 24 hours, 1,129 deaths have been registered taking total fatalities in the country to 91,149. Maharashtra reported 479 deaths followed by Uttar Pradesh and Punjab with 87 and 64 deaths, respectively.**

Nearly 74 per cent of the new recovered cases are found in 10 States/UTs. Maharashtra has maintained this lead with 19,476 cases (22.3 per cent) for the sixth consecutive day. In the last 24 hours, 1,129 deaths have been registered taking total fatalities in the country to 91,149. Maharashtra reported 479 deaths followed by UP and Punjab with 87 and 64 deaths, respectively.

Noida Covid tally crosses 12K, 192 cases in 24 hours

Noida, Sept. 24: Uttar Pradesh's Gautam Buddha Nagar recorded 192 Covid-19 cases on Thursday that pushed the district's caseload to 12,010, official data showed. The number of active cases rose to 1,699 from 1,615, according to the data released by the UP Health Department for a 24-hour period.

On the brighter side, 109 more patients got discharged during the period, as the total number of recoveries reached 10,261, the data showed. The district, adjoining Delhi, has so far recorded 50 deaths linked to the pandemic, with one of the lowest mortality rates of 0.41 per cent, it showed.

Meanwhile, the recovery rate of patients reached 85.43 per cent, down from 85.91 per cent on Wednesday as per the statistics. Gautam Buddha Nagar now ranks ninth among the 75 districts in the state in terms of active cases, seventh in recoveries and 32nd in death toll, according to the official figures. There were 61,300 active cases across UP on Thursday. — PTI

Post-COVID syndrome

Post-COVID syndrome emerging in Kerala? (The Hindu: 2020925)

<https://www.thehindu.com/news/national/kerala/threat-of-lung-fibrosis-post-covid/article32687199.ece>

Threat of lung fibrosis post-COVID

Initial symptoms of pulmonary fibrosis, a lung disease happening due to the damaging of tissues that can lead to shortening of breath, have been noticed in a couple of people who recovered from COVID-19 here recently.

Common diabetes drug

Common diabetes drug linked to low risk of major heart issues (New Kerala: 2020925)

<https://www.newkerala.com/news/2020/169964.htm>

Common diabetes drug linked to low risk of major heart issues

Toronto, Sep 24 : Drugs known as sodium-glucose cotransporter 2 (SGLT2) inhibitors are associated with a lower risk of major heart problems in patients with type 2 diabetes than dipeptidyl peptidase-4 (DPP-4) inhibitors, say, researchers.

According to the study, published in the journal *The BMJ*, previous trials have shown that SGLT2 inhibitors can reduce the risk of heart conditions such as heart attack, stroke, and heart failure compared with placebo.

But some of these trials had important limitations, making it difficult to interpret the results, and data on the effects of individual SGLT2 inhibitors on the heart are limited.

So the research team from McGill University in Canada set out to compare the risk of cardiovascular events between SGLT2 inhibitors and DPP-4 inhibitors among adults with type 2 diabetes in a "real world" clinical practice setting.

Their findings are based on healthcare data from seven Canadian provinces and the UK from 2013-18 (a total of 209,867 new users of an SGLT2 inhibitor matched to 209,867 users of a DPP-4 inhibitor).

Major cardiovascular events (a combination of heart attack, stroke or cardiovascular death), as well as heart failure and death from any cause, were recorded for an average of 11 months.

Compared with DPP-4 inhibitors, SGLT2 inhibitors were associated with a reduced risk of heart attack, stroke or cardiovascular death combined (11.4 events per 1000 person years vs 16.5 events per 1000 person years).

"SGLT2 inhibitors were also associated with decreased risks of individual events," the researchers wrote.

According to the researchers, results were similar in subgroups defined by patient age, sex, past insulin use, and history of cardiovascular disease.

This is an observational study and the researchers point to some limitations, such as relying on prescription data over a relatively short follow-up period.

They cannot rule out the possibility that other unmeasured (confounding) factors may have affected their results. However, results were consistent across several analyses, suggesting that they withstand scrutiny.

These findings suggest that SGLT2 inhibitors offer cardioprotective benefits among people with type 2 diabetes in a real-world setting, although additional studies are needed to determine if these benefits persist long term.

Chronic kidney disease

Your neighborhood may raise your risk of chronic kidney disease (New Kerala: 2020925)

A neighbourhood's overall socioeconomic status, including income and education level, may influence its residents' risk of chronic kidney disease, according to a study.

The study was recently published in *SSM Population Health* by researchers from Drexel University's Dornsife School of Public Health.

Although previous studies have shown an association between individual socioeconomic status and chronic kidney disease, less is known about how the characteristics of an individual's neighbourhood, such as overall socioeconomic status, walkability, violent crime and availability of healthy food, may influence the risk of chronic kidney disease, poor blood sugar control (A1c over or equal to 6.5 per cent) and uncontrolled high blood pressure (at least one instance of systolic blood pressure greater than 140 mm Hg and/or diastolic blood pressure greater than 90 mm Hg), especially in urban areas.

In a study of 23,692 adult Philadelphians, all seen in a primary care practice in 2016 or 2017, the authors found that those living in low socioeconomic status neighbourhoods (factoring in neighbourhood income, educational attainment and occupation), were more likely to have kidney disease than those living in higher socioeconomic status neighbourhoods. Also, poor neighbourhood walkability, as measured by Walkscore®, was associated with poor blood sugar control in chronic kidney disease patients and poor blood pressure control in those without chronic kidney disease. The authors adjusted for individual age, race, sex and insurance type.

"Our finding, that people who are living in neighborhoods with the fewest resources are at highest risk for kidney disease, should be a call to health providers to integrate knowledge about their patients' environments in their care processes, and to policymakers to allocate resources to at-risk communities that will promote health," said senior author Meera Harhay, MD, an associate professor of Medicine at Drexel's College of Medicine and Dornsife School of Public Health. "Our results also show that neighbourhood environments that promote physical activity are protective when it comes to blood pressure and blood sugar management, whereas less walkable neighbourhoods might exacerbate conditions that are risk factors for kidney disease."

Chronic kidney disease is characterized by damaged kidneys that are unable to adequately filter waste and excess fluids out of the blood. Without early detection and management of blood pressure and blood glucose, this damage can lead to kidney failure and dialysis or a kidney transplant as the remaining options.

An estimated 37 million -- 15% -- of U.S. adults are estimated to suffer from chronic kidney disease, and nine out of 10 of those cases go undiagnosed. The findings of this research are valuable to the U.S. Department of Health and Human Services' Advancing American Kidney Health Initiative, whose goals include reducing the number of Americans in end-stage renal disease by 25% by 2030.

"This study offers tools to help identify communities at higher risk of kidney disease at earlier stages so their condition can be managed to prevent end-stage kidney disease from developing," Harhay said. "Health providers should consider incorporating knowledge about neighbourhood-level social determinants of health when they are assessing their patients."

The authors note that future studies should look at what neighbourhood characteristics might contribute to the progression of chronic kidney disease, and whether socioeconomic status might be a marker for lower access to health-promoting resources, such as information on self-care and chronic disease management, that might help prevent chronic kidney disease.

Neurological consequences of COVID-19

Study focuses on neurological consequences of COVID-19 (New Kerala: 2020925)

<https://www.newkerala.com/news/2020/169545.htm>

A team of neuroscientists and clinicians are examining the potential link between COVID-19 and increased risk of Parkinson's disease, and measures to get ahead of the curve.

The study has been published in the Journal of Parkinson's Disease.

"Although scientists are still learning how the SARS-CoV-2 virus is able to invade the brain and central nervous system, the fact that it's getting in there is clear. Our best understanding is that the virus can cause insult to brain cells, with potential for neurodegeneration to follow on from there," said Professor Kevin Barnham from the Florey Institute of Neuroscience and Mental Health.

In a review paper published today, researchers put a spotlight on the potential long-term neurological consequences of COVID-19, dubbing it the 'silent wave'. They are calling for urgent action to be taken to have available more accurate diagnostic tools to identify neurodegeneration early on and a long-term monitoring approach for people who have been infected with the SARS-CoV-2 virus.

The researchers report that neurological symptoms in people infected with the virus have ranged from severe, such as brain hypoxia (lack of oxygen), to more common symptoms such as loss of smell.

"We found that loss of smell or reduced smell was on average reported in three out of four people infected with the SARS-CoV-2 virus. While on the surface this symptom can appear as little cause for concern, it actually tells us a lot about what's happening on the inside and that is that there's acute inflammation in the olfactory system responsible for smell," explained Florey researcher Leah Beauchamp.

Inflammation is understood to play a major role in the pathogenesis of neurodegenerative disease and has been particularly well studied in Parkinson's. Further research into these illnesses may prove critical for future impacts of SARS-CoV-2.

"We believe that the loss of smell presents a new way forward in detecting someone's risk of developing Parkinson's disease early. Armed with the knowledge that loss of smell presents in around 90% of people in the early stages of Parkinson's disease and a decade ahead of motor symptoms, we feel we are on the right track," added Ms Beauchamp.

Clinical diagnosis of Parkinson's disease currently relies on the presentation of motor dysfunction, but research shows that by this time 50-70% of dopamine cell loss in the brain has already occurred.

"By waiting until this stage of Parkinson's disease to diagnose and treat, you've already missed the window for neuroprotective therapies to have their intended effect. We are talking about an insidious disease affecting 80,000 people in Australia, which is set to double by 2040 before even considering the potential consequences of COVID, and we currently have no available disease-modifying therapies," said Professor Barnham.

The researchers hope to establish a simple, cost-effective screening protocol aiming to identify people in the community at risk of developing Parkinson's, or who are in early stages of the disease, at a time when therapies have the greatest potential to prevent the onset of motor dysfunction. They plan to put the proposal forward for funding from the Australian Government's Medical Research Future Funding scheme.

Additionally, the team have developed two neuroprotective therapies currently under investigation and have identified a cohort of subjects who are ideally suited to study the treatments. Through their research, they gained new evidence that people with REM sleep behaviour disorder have a higher predisposition to go on to develop Parkinson's disease.

Parkinson's disease is a significant economic burden costing the Australian economy in excess of \$10 billion a year.

"We have to shift community thinking that Parkinson's not a disease of old age. As we've been hearing time and time again, the coronavirus does not discriminate - and neither does Parkinson's," said Professor Barnham.

"We can take insight from the neurological consequences that followed the Spanish Flu pandemic in 1918 where the risk of developing Parkinson's disease increased two to three-fold. Given that the world's population has been hit again by a viral pandemic, it is very worrying indeed to consider the potential global increase of neurological diseases that could unfold down the track."

He added, "The world was caught off guard the first time, but it doesn't need to be again. We now know what needs to be done. Alongside a strategised public health approach, tools for early diagnosis and better treatments are going to be key."

COVID-19 test

Researchers develop cheaper, faster COVID-19 test (New Kerala: 2020925)

<https://www.newkerala.com/news/2020/169463.htm>

A team of researchers has developed a method for fast, cheap, yet accurate testing for COVID-19 infection. The method simplifies and frees the testing from expensive reaction steps, enabling upscaling of the diagnostics.

This makes the method particularly attractive for places and situations with limited resources. It is equally interesting for repeated testing and for moving resources from expensive diagnostics to other parts of the care chain. The study led by researchers at the Karolinska Institutet was published in the journal Nature Communications.

"We started working on the issue of developing a readily available testing method as soon as we saw the developments in Asia and southern Europe, and before the situation reached crisis point in Sweden," says principal investigator Bjorn Reinius, research leader at the Department of Medical Biochemistry and Biophysics at Karolinska Institutet. "Our method was effectively finished already by the end of April, and we then made all the data freely available online."

The spread of the new coronavirus at the end of 2019 in China's Wuhan region quickly escalated into a global pandemic. The relatively high transmission rate and a large number of asymptomatic infections led to a huge, worldwide need for fast, affordable, and effective diagnostic tests that could be performed in clinical as well as non-clinical settings.

Established diagnostic tests for COVID-19 are based on the detection of viral RNA in patient samples, such as nasal and throat swabs, from which RNA molecules must then be extracted and purified. RNA purification constitutes a major bottleneck for the testing process, requiring a great deal of equipment and logistics as well as expensive chemical compounds.

Making the current methods simpler without markedly compromising their accuracy means that more and faster testing can be carried out, which would help to reduce the rate of transmission and facilitate earlier-stage care.

The cross-departmental research group at Karolinska Institutet has now developed methods that completely circumvent the RNA-extraction procedure so that once the patient sample has been inactivated by means of heating, rendering the virus particles no longer infectious, it can pass straight to the diagnostic reaction that detects the presence of the virus.

According to the researchers, the most important keys to the method's success are both the above virus inactivation procedure and a new formulation of the solution used to collect and transport the sample material taken from the patients.

"By replacing the collection buffer with simple and inexpensive buffer formulations, we can enable viral detection with high sensitivity directly from the original clinical sample, without any intermediate steps," says Dr Reinius.

Institutions and research groups around the world have shown great interest in the method since a first version of the scientific article was published on the preprint server medRxiv. The article was read more than 15,000 times even before it was peer-reviewed by other researchers in the field and officially published in Nature Communications.

"Thanks to the low cost and the simplicity of the method, it becomes a particularly attractive option at sites and in situations with limited resources but a pressing need to test for COVID-19," he says and adds "I would certainly like to see that this test used in Sweden too, for example for cheap periodic testing of asymptomatic people to eliminate the spread of infection."

Coronavirus India Cases Update:

Coronavirus India Cases Update: पिछले 24 घंटों में आए 86 हजार मामले, 47 लाख से अधिक लोग हुए ठीक(Dainik Gaganan: 2020925)

<https://www.jagran.com/news/national-coronavirus-india-cases-update-eighty-six-thousand-new-case-in-past-24-hours-over-47-lakhs-recovered-so-far-20793966.html>

देश में कोरोना वायरस के नए मामलों में गिरावट। देश में कोरोना वायरस के नए मामलों में गिरावट। Publish Date: Fri, 25 Sep 2020 नई दिल्ली, एएनआइ। Coronavirus India Cases Update, देश में कोरोना वायरस के नए मामलों में गिरावट आ रही है। बीते 24 घंटों में देश भर में कोरोना के 86 हजार से अधिक नए मामले सामने आए हैं, वहीं इस दौरान एक हजार से अधिक लोगों की मौत हुई है। केंद्रीय स्वास्थ्य मंत्रालय के ताजा आंकड़ों के अनुसार, देश भर में कोरोना के अब तक 58 लाख से ज्यादा मामले सामने आ चुके हैं, लेकिन राहत की बात ये है कि इनमें से 47 लाख से ज्यादा लोग ठीक हो चुके हैं।

ताजा आंकड़ों के मुताबिक, देश में बीते 24 घंटों में कोरोना के 86,052 नए मामले सामने आए हैं। इस दौरान कुल 1141 मरीजों की मौत भी हुई है। स्वास्थ्य मंत्रालय के मुताबिक, इसको मिलाकर देश में कोरोना के कुल मामले 58,18,571 हो गए हैं। देश में कोरोना के एक्टिव मामलों का आंकड़ा 9,70,116 तक जा पहुंचा है। कोरोना से ठीक होने वालों का आंकड़ा भी बढ़कर 47,56,165 हो गया है। देश में कोरोना से मौत के आंकड़ों पर नजर डालें तो अब तक यहां 92,290 लोगों की मौत हो चुकी है।

ड्रग्स मामले में अभिनेत्री रकुलप्रीत सिंह से पूछताछ जारी।

Bollywood Drug Case News: NCB के दफ्तर पहुंची दीपिका पादुकोण की मैनेजर, रकुलप्रीत से पूछताछ जारी

यह भी पढ़ें

कोरोना से ठीक होने की दर बढ़ी

देश में कोरोना वायरस से ठीक होने वाले मरीजों की दर तेजी से बढ़ रही है। देश में कोरोना से अब तक 47 लाख 56 हजार 164 मरीज ठीक हो चुके हैं। कोरोना की रिकवरी दर 81.74% तक पहुंच गई है।

कोरोना की मृत्यु दर नीचे

देश में कोरोना से मरने वालों का आंकड़ा फिलहाल 92,290 तक जा पहुंचा है। इसको मिलाकर देश में कोरोना की मृत्यु दर 1.59% तक पहुंच गई है।

टाइम मैग्जीन की सौ प्रभावशाली हस्तियों में शामिल हैं बिल्किस बानो शाहीनबाग धरने का चेहरा बनीं बिल्किस दादी ने दिया पीएम मोदी को आशीर्वाद, बताया अपना बेटा यह भी पढ़ें महाराष्ट्र में सबसे ज्यादा मामले

महाराष्ट्र में कोरोना वायरस के सबसे ज्यादा मामले सामने आए हैं। महाराष्ट्र में अब तक कोरोना के 2,75,404 मामले सामने आ चुके हैं। वहीं यहां 9,73,214 एक्टिव केस हैं। महाराष्ट्र में कोरोना से मरने वालों का आंकड़ा बढ़कर 34,345 तक जा पहुंचा है।

इंडियन टी20 लीग

डाउनलोड करें जागरण एप और न्यूज जगत की सभी खबरों के साथ पायें जॉब अलर्ट, जोक्स, शायरी, रेडियो और अन्य सर्विस

Virus (Hindustan: 2020925)

https://epaper.livehindustan.com/imageview_335593_88811218_4_1_25-09-2020_2_i_1_sf.html

वायरस का बदलता रूप खतरनाक

शोध

1

नई दिल्ली | एजेसी

दुनियाभर में तेजी से बढ़ते संक्रमण के बीच चिंता पैदा करने वाली एक रिपोर्ट सामने आई है। ह्यूस्टन के वैज्ञानिकों ने पांच हजार मरीजों में वायरस के जेनेटिक सिक्वेंस का अध्ययन करने के बाद दावा किया कि वायरस लगातार रूप बदल रहा है जो इसे और खतरनाक बना रहा है। करीब 99 फीसदी सैंपल में यह बदलाव देखा गया है। वैज्ञानिकों के मुताबिक, नया रूप ज्यादा संक्रामक है, जिससे माना जा रहा है कि



कोरोना की दूसरी लहर ज्यादा खतरनाक होगी।

वैज्ञानिकों के मुताबिक, ह्यूस्टन व आसपास की ज्यादातर जगहों पर वायरस डी614जी म्यूटेशन पाया गया। जिन मरीजों में वायरल लोड ज्यादा था, उनमें यह बदलाव अधिक देखने को मिला। वैज्ञानिकों ने यह भी

महाराष्ट्र में चार लोगों को दोबारा संक्रमण

महाराष्ट्र में चार लोग दूसरी बार संक्रमित पाए गए हैं। खास बात यह है कि इनमें पहले के मुकाबले ज्यादा गंभीर संक्रमण देखने को मिला। लैंसेट मेडिकल जर्नल में प्रकाशित रिपोर्ट के मुताबिक, मुंबई के नायर अस्पताल के तीन डॉक्टर और हिंदुजा अस्पताल के एक स्वस्थकर्मी को मई-जून में पहली बार संक्रमण हुआ। ठीक होने के बाद जुलाई में वे फिर संक्रमित हो गए। जब चारों मरीजों की जीनोम सिक्वेंसिंग की जांच की गई तो पता चला कि दूसरी बार संक्रमण पहले के मुकाबले ज्यादा गंभीर था। हालांकि, अब सभी लोग स्वस्थ हैं। बीमारी से ठीक होने को उनकी कम उम्र को भी माना जा रहा है।

निष्कर्ष निकला कि म्यूटेशन जो वायरस की सतह पर स्पाइक प्रोटीन की संरचना को बदलता है, इस वायरस को और अधिक संक्रामक बना रहा है। शोधकर्ताओं में से एक व ह्यूस्टन मेथोडिस्ट हॉस्पिटल के जेम्स मुसर

के मुताबिक, वायरस के लगातार नया रूप लेने मुश्किलें बढ़ रही हैं।

नेशनल इंस्टीट्यूट ऑफ एलर्जी एंड इन्फेक्शंस डिजीज के

वायरोलॉजिस्ट डेविड मोरेंस कहते हैं कि कोरोना वायरस अधिक संक्रामक हो गया है।

1000

नमूनों की जांच के बाद वैज्ञानिकों ने किया दावा

मास्क संक्रमित मरीजों को मरने से बचा रहा

शोध

2

नई दिल्ली | एजेसी

मास्क सिर्फ आपको संक्रमण से ही नहीं बचाएगा बल्कि जिन मरीजों को संक्रमण हो चुका है, उन्हें मरने से भी बचाएगा। इटली व अमेरिका में हुए दो अध्ययनों में इसकी पुष्टि हुई है।

शोधकर्ताओं के मुताबिक, जो मरीज मास्क का उपयोग करते हैं उन्हें गंभीर रूप से बीमार पड़ने की संभावना सिर्फ 14 फीसदी है जबकि मास्क नहीं पहनने वाले मरीजों के गंभीर रूप से बीमार होने का खतरा 70 फीसदी से

ज्यादा है। अमेरिका के शोधकर्ताओं ने अप्रैल-जून के बीच डेट्रायट के अस्पतालों में भर्ती होने वाले मरीजों पर अध्ययन किया। उन्होंने पाया कि जिन लोगों ने मास्क-सामाजिक दूरी समेत सभी उपायों को अपनाया उनके गंभीर रूप से बीमार होने का खतरा काफी कम था।

इनमें मृत्युदर भी काफी कम नजर आया जबकि मास्क नहीं अपनाने वालों में ज्यादा वायरल लोड था और इनमें से आधे मरीजों की मौत भी हो गई। इटली के एक अन्य अध्ययन में पाया गया कि मास्क पहनने से जैसे-जैसे वायरल लोड में गिरावट आई, वैसे ही गंभीर मामलों में भी कमी आई।

Vaccine ((Hindustan: 2020925)

https://epaper.livehindustan.com/imageview_335593_88799008_4_1_25-09-2020_2_i_1_sf.html

• रूस के स्वास्थ्य विभाग ने अनुमति लेने की प्रक्रिया शुरू की • चीन ने भी किया है ऐलान

बच्चों पर टीके के परीक्षण की तैयारी

नई दिल्ली | हिन्दुस्तान ब्यूरो

संक्रमण के बढ़ते खतरे को देखते हुए दुनियाभर में अब बच्चों पर भी वैक्सीन के परीक्षण की तैयारी शुरू हो गई है। रूस के स्वास्थ्य विभाग ने छह महीने बाद पांच साल से ऊपर के बच्चों पर परीक्षण करने का ऐलान किया है। चीन चार दिनों बाद तीन साल से ऊपर के बच्चों पर ट्रायल करने जा रहा है। ऑक्सफोर्ड वैक्सीन के परीक्षण में भी बच्चों को शामिल करने की तैयारी है। पहले बच्चों पर इतनी जल्दी परीक्षण नहीं किए गए। क्यों जरूरी

अब तक दुनियाभर में लाखों बच्चे कोरोना वायरस की चपेट में आ चुके हैं। अमेरिकन एकेडमी ऑफ चिल्ड्रेन हॉस्पिटल एसोसिएशन के मुताबिक, अकेले अमेरिका में 587,000 बच्चे वायरस से संक्रमित पाए गए हैं। बीते दो महीनों में तीन से 17 साल की आयु वर्ग वाले बच्चों के संक्रमित होने की तादात 15 फीसदी तक बढ़ी है। हालांकि, रहत की बात है कि सिर्फ 0.33 फीसदी बच्चों की ही वायरस की वजह से मौत हुई है।

रूस की बड़ी योजना : गामलेया इंस्टीट्यूट के निदेशक और रूस के स्वास्थ्य मंत्रालय में अधिकारी अलेक्जेंडर गिंट्सबर्ग ने बताया कि करीब छह महीने बाद हम बच्चों पर वैक्सीन का परीक्षण शुरू करेंगे।

इसकी अनुमति लेने की औपचारिकताएं पूरी की जा रही हैं। देश के सभी प्रमुख चिकित्सा संस्थानों में बच्चों पर क्लिनिकल परीक्षण करने की

587,000

बच्चे कोरोना वायरस से संक्रमित पाए गए हैं सिर्फ अमेरिका में

15%

तक बढ़ी है दो महीनों में तीन से 17 साल के बच्चों के संक्रमित होने की तादात

0.33%

बच्चों की ही कोरोना वायरस के संक्रमण की वजह से मौत हुई है



चीन के बीजिंग में गुरुवार को सिनोवैक बायोटेक में वैक्सीन तैयार करता एक कर्मी। • सेंटर्स

सुरक्षा

बच्चों-वयस्कों में अंतर

गामलेया इंस्टीट्यूट के निदेशक के मुताबिक, बच्चों की सुरक्षा सबसे बड़ा पैमाना है। बच्चों का शरीर कई मायनों में वयस्कों की तुलना में ज्यादा संवेदनशील होती है। इसलिए उनपर ज्यादा दुष्प्रभाव दिख सकता है। यही वजह है कि बच्चों पर परीक्षण करते समय सुरक्षा का खास ध्यान रखा जाएगा।

कोशिश की जाएगी। विभिन्न आयु वर्ग की एक सूची तैयार की जा रही है।

चीन में चार दिन बाद ट्रायल : चीनी कंपनी 'सिनोवैक बायोटेक' ने इस महीने

सजगता

बिल्कुल अलग तैयारी

बच्चों की वैक्सीन बनाने के लिए वैज्ञानिकों को अलग से तैयारी करनी पड़ती है। खसरा, पोलियो और टिटनेस जैसी बीमारियों के लिए वैक्सीन बनाने के वास्ते वैज्ञानिकों ने नए तरह से शुरुआत की थी। कई तरह के नए मानदंड बनाए गए ताकि किसी तरह की दिक्कत महसूस होने पर तुरंत परीक्षण बंद किया जाए।

के अंत में बच्चों और किशोरों पर वैक्सीन का ट्रायल करने की घोषणा की है। कंपनी के प्रवक्ता ने बताया कि तीन से 17 वर्ष की आयु के कुल 552 स्वस्थ

सतर्कता

ऑक्सफोर्ड भी तैयार

ऑक्सफोर्ड यूनिवर्सिटी ने भी अपनी वैक्सीन का बच्चों पर परीक्षण करने की तैयारी कर ली है। हालांकि, इसमें बहुत छोटे बच्चे शामिल नहीं किए जाएंगे। जून से शुरू हो रहे एडवॉर्ड स्टैज के ट्रायल में 10,260 लोगों पर यह टीका लगाया जाएगा। इसमें पांच से 12 साल तक की उम्र के बच्चे भी शामिल हैं।

प्रतिभागियों को सिनोवैक की दो खुराक दी जाएगी। इस परीक्षण के उत्तरी चीनी प्रांत हेबै में 28 सितंबर से शुरू होने का अनुमान है।

समस्याएं भी

1. ज्यादातर डर के कारण बच्चों पर ट्रायल करने की इजाजत नहीं देते
2. कई देशों में बच्चों पर खतरा नहीं इसलिए वहां परीक्षण आसान नहीं
3. वायरल लोड अन्य लोगों की अपेक्षा बच्चों में कम होता है, वैज्ञानिकों के सामने यह बड़ी समस्या

व्या कहते हैं विशेषज्ञ

बच्चों पर वैक्सीन का परीक्षण करने से पहले कम उम्र के जानवरों पर जांच की जाएगी। अगर उन पर कोई दुष्प्रभाव नजर नहीं आया तभी वैक्सीन का उपयोग बच्चों पर किया जाएगा।

-वदिम तारासोव, निदेशक, द सेनेवोव इंस्टीट्यूट फॉर ट्रान्सलेशनल मेडिसिन एंड बायोटेक्नोलॉजी

इसलिए बच्चे सुरक्षित

वयस्कों की तुलना में कोरोना संक्रमित बच्चों की मृत्यु होने की संभावना नो गुना कम है। अल्बर्ट आइंस्टीन कॉलेज ऑफ मेडिसिन एंड येल यूनिवर्सिटी के शोधकर्ताओं ने लंबे अध्ययन के बाद यह खुलासा किया है। वैज्ञानिकों ने इसके पीछे की वजह भी ढूँढ निकाली है। उनके मुताबिक, बच्चों के इम्यून सिस्टम में 17ए और आईएनएफ-जी का स्तर काफी ऊंचा रहता है, जो वायरस के गंभीर खतरे से उन्हें बचाता है।