



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Tuesday 20201229

Coronavirus strain

Samples of 6 UK returnees test positive for mutant coronavirus strain: Centre

Of the 33K UK returnees who arrived since Nov 25, 114 are COVID positive and currently under test for new mutant strain (The Tribune: 20201229)

<https://www.tribuneindia.com/news/nation/samples-of-6-uk-returnees-test-positive-for-mutant-coronavirus-strain-centre-190959>

Samples of 6 UK returnees test positive for mutant coronavirus strain: Centre
New UK variant of SARS-CoV2 found in samples of six UK returnees in India, says Health Ministry. PTI/file

India on Tuesday reported the presence of UK mutant COVID virus in the country in six UK returnees who recently arrived in India.

The national genome consortium set up to track mutations said “A total of 6 samples of 6 UK returnee persons have been found to be positive with the new UK variant genome. 3 in NIMHANS, Bengaluru, 2 in CSIR Institute Centre for Cellular Biology, Hyderabad and 1 in NIV, Pune.

From November 25 to December 23, 2020 midnight, about 33,000 passengers disembarked at various Indian airports from UK and tracked.

“All these passengers are being tracked and subjected by states and UTs to RT-PCR tests. So far only 114 have been found Positive. These positive samples have

been sent to 10 genome sequencing labs and a total of 6 samples of 6 UK returnee

persons have been found to be positive with the new UK variant genome. 3 in, Bengaluru, 2 in CCMB, Hyderabad and 1 in NIV, Pune,” the Health Ministry conformed.

All these persons have been kept in a single-room isolation in designated Health Care facilities by respective state governments.

Their close contacts have also been put under quarantine.

Comprehensive contact tracing has been initiated for their co-travellers, family contacts and others.

Genome sequencing on other specimens is going on.

“The situation is under careful watch and regular advice is being provided to the states for enhanced surveillance, containment, testing, dispatch of samples to INSACOG labs,” the government said.

The presence of the new UK Variant has already been reported by Denmark, Netherlands, Australia, Italy, Sweden, France, Spain, Switzerland, Germany, Canada, Japan, Lebanon and Singapore, so far.

Oxford COVID-19 vaccine

Oxford COVID-19 vaccine may become the first to get Indian regulator's nod for emergency use (The Tribune: 20201229)

<https://www.tribuneindia.com/news/health/oxford-covid-19-vaccine-may-become-the-first-to-get-indian-regulators-nod-for-emergency-use-189714>

Indian regulator waiting for UK to give emergency authorisation of 'Covishield'

Oxford COVID-19 vaccine may become the first to get Indian regulator's nod for emergency use

With preparations underway for a possible vaccine-rollout by January, the Indian drug regulator is looking at the UK, which sources believe may give its nod to the Oxford COVID-19 vaccine next week, before deciding on giving emergency use authorisation to the Serum Institute that is manufacturing the shots here.

Once the UK drug regulator gives its approval to the Oxford vaccine, the expert committee on COVID-19 at the CDSCO will hold its meeting and thoroughly review the safety and immunogenicity data from the clinical evaluations conducted abroad and in India before granting any emergency authorisation for the vaccine here, official sources said.

The process of granting emergency use approval for Bharat Biotech's COVID-19 vaccine 'Covaxin' may take time as its phase 3 trials are still underway, while Pfizer is yet to make a presentation.

“Going by this, Oxford vaccine 'Covishield' is likely to be the first to be rolled out in India,” a source said.

Serum Institute of India (SII) last week also had submitted some additional data required by the Drug Controller General of India (DCGI), the sources said.

Amid fears about the mutated variant of SARS-CoV-2 detected in the UK, government officials recently said that it will have no impact on the potential of emerging vaccines that are being developed in India and other countries.

Bharat Biotech, Serum Institute of India (SII) and Pfizer had applied to the Drugs Controller General of India (DCGI) seeking emergency use authorisation for their COVID-19 vaccines early this month.

The subject expert committee (SEC) on COVID-19 of the Central Drugs Standard Control Organisation (CDSCO) on December 9 had sought additional safety and efficacy data for COVID-19 vaccines of SII and Bharat Biotech after deliberating upon their applications.

The application by the Indian arm of US pharmaceutical firm Pfizer was not taken up for deliberation as the company had sought more time for making a presentation before the committee.

The Pfizer vaccine has already been approved by several countries including the UK, the US, and Bahrain.

While considering SII's application, the SEC had recommended that the firm should submit an updated safety data of phase 2 and 3 clinical trials in the country, immunogenicity data from the clinical trial in the UK and India, along with the outcome of the assessment of the UK Medicines and Healthcare products Regulatory Agency (MHRA) for grant of EUA.

As for Hyderabad-based Bharat Biotech, "after detailed deliberation, the committee recommended that the firm should present the safety and efficacy data from the ongoing phase 3 clinical trial in the country for further consideration", the SEC had said.

The Pune-based SII, the world's largest vaccine manufacturer, has made a collaboration with the University of Oxford and AstraZeneca to manufacture the vaccine.

The SII has already manufactured 40 million doses of the vaccine, under the at-risk manufacturing and stockpiling licence from the DCGI, officials recently had said. --- PTI

Asymptomatic infection

Lasting immunity against COVID-19 found after mild or asymptomatic infection: Study

'89 per cent of healthcare workers analysed in study carried neutralising antibodies 16-18 weeks after infection'(The Tribune: 20201229)

<https://www.tribuneindia.com/news/health/lasting-immunity-against-covid-19-found-after-mild-or-asymptomatic-infection-study-190578>

Lasting immunity against COVID-19 found after mild or asymptomatic infection: Study

A healthcare worker holds a bottle of the Pfizer/BioNtech COVID-19 vaccine at Notre Dame home care, as the coronavirus disease outbreak continues in Brussels, on December 28, 2020. Reuters

Scientists have found evidence of protective immunity against COVID-19 in people up to four months after mild or asymptomatic coronavirus infection, providing hope for the long-lasting efficacy of vaccines.

The researcher, including those from Queen Mary University of London analysed antibody and T cell responses in 136 healthcare workers in the UK, who had mild or asymptomatic COVID-19 infection dating back to March.

The study, published in the journal *Science Immunology*, found that 89 per cent of healthcare workers analysed carried neutralising antibodies 16-18 weeks after infection.

The team, also involving researchers Imperial College London and University College London, UK, found most workers also had T cells capable of recognising multiple different parts of the virus.

However, they noted that the two responses did not always persist in harmony, with some individuals showing T cell immunity but no evidence of antibodies, and vice versa.

“Our study of SARS-CoV-2 infection in healthcare workers from London hospitals reveals that four months after infection, around 90 per cent of individuals have antibodies that block the virus,” Joseph Gibbons, a Postdoctoral Research Assistant at Queen Mary, said.

“Even more encouragingly, in 66 per cent of healthcare workers we see levels of these protective antibodies are high and that this robust antibody response is complemented by T cells which we see reacting to various parts of the virus,” Gibbons said.

Describing the finding as “good news”, he explained that if someone has been infected with the coronavirus, there is a good chance that they will have developed antibodies and T cells that may provide some protection in case they encounter the virus again.

Much of the debate on protective immunity has focussed on the different roles of B cells, which make antibodies, and T cells, white blood cells which help protect from viruses, including direct killing.

The latest study found that while protective antibody responses were usually complemented by a T cell response, over half of the healthcare workers had different antibody and T cell responses.

The workers did not produce a T cell response specific to proteins found on the outer layer of the SARS-CoV-2 virus.

The research also found that T cell responses tended to be higher in those with the classic, defining symptoms of COVID-19, while asymptomatic infection resulted in a weaker T cell immunity than symptomatic infection, but equivalent neutralising antibody responses.

The new study also provides reassurance for vaccination efforts, suggesting that even following mild infection, individuals carry antibody and T cell immunity to many parts of the virus, known as epitopes.

The researchers noted that while new variants are appearing, the changes to the virus don't necessarily occur within these epitopes so it is hoped the vast majority of immune recognition can likely continue unperturbed.

“Our study in asymptomatic and mild cases gives a positive insight into the durability of immunity to SARS-CoV-2 after four months of infection,” Corinna Pade, a Postdoctoral Research Scientist at Queen Mary, said.

The researchers noted that it is an important finding as mild or even no symptoms of COVID-19 are very common and representative of most infections in the community.

“Such abundant immune responses also give hope for the long-lasting efficacy of vaccines,” Pade added. PTI

Covid vaccines

Clarify whether Covid vaccines contain cow's blood: All India Hindu Mahasabha chief

Swami Chakrapani seeks clarification from govt, pharma companies in letter to President (The Tribune: 20201229)

<https://www.tribuneindia.com/news/health/clarify-whether-covid-vaccines-contain-cows-blood-all-india-hindu-mahasabha-chief-190549>

Clarify whether Covid vaccines contain cow's blood: All India Hindu Mahasabha chief
Image only for representational purposes. Reuters photo.

All India Hindu Mahasabha President Swami Chakrapani has written to President Ram Nath Kovind demanding that the government and pharmaceutical companies clarify whether COVID-19 vaccines contain cow's blood.

In a memorandum to the President, Chakrapani said it should be clarified that cow's blood or any such substance has not been used in the vaccine, which "hurts the spirit of Hindu Sanatan Dharma".

राष्ट्रपति को दिया गया ज्ञापन, कोरोना के वैक्सीन या दवा भारत में लाने से पहले सरकार या अंतरराष्ट्रीय कंपनियों देश को स्पष्ट करें की वैक्सीन या दवा में गाय का खून अथवा कोई भी ऐसे पदार्थ ना हो जो हिंदू सनातन धर्म की भावना को आहत करता है ❀❀❀ स्वामी चक्रपाणि महाराज-
pic.twitter.com/UgOj1idLAF

— Swami Chakrapani Maharaj (@SwamyChakrapani) December 27, 2020

Chakrapani said during the British rule, "cow fat was used in cartridges to corrupt religion against which Mangal Pandey of Maharishi Bhargu's Tapobhumi Ballia burnt the bugle of rebellion".

The country's first freedom fighters sacrificed themselves for religion and nation, but did not compromise, he said.

Chakrapani expressed concern over an "international conspiracy to destroy religion by feeding cow's blood, meat or fat in the name of corona vaccine and medicine".

Vaccination

Vaccination dry run kicks off in 4 states

Two-day exercise begins in Punjab, Assam, Andhra, Gujarat; data being monitored through online platform (Hindustan Times: 20201229)

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

Health care and grassroots staff in four states — one each in the country's east, north, west and south — carried out drills for coronavirus vaccinations on Monday, testing the core technology platform, transport arrangements, and the methods for monitoring and reporting serious side effects.

The exercise was carried out in Sonitpur and Nalbari districts in Assam, Rajkot and Gandhinagar in Gujarat, Ludhiana and Shaheed Bhagat Singh Nagar (Nawanshahr) in Punjab and Krishna district in Andhra Pradesh. Further drills will be held on Tuesday.

The exercise comes at a time when drug regulators are expected any day to take a decision on giving emergency approvals to pave way for the first shots to be given. The country targets to deliver doses, likely to be in a regimen of two, to 300 million people by the summer – one of the largest logistical exercises to be undertaken outside of the elections.

According to officials aware of the process, Monday's drills largely focused on testing the digital platform Co-Win but transportation, cold storage and crowd management at vaccination centres were also assessed.

“Two generic problems were faced by all states that we are trying to sort out: one was during the adverse event reporting wherein the staff had to originally wait for the entire session of 100 people to end before they could upload the information...

“Another that has been seen is mapping of pincode against villages; if the pincode is not mapped in the app then the staff on ground will have to do it manually after due verification against the address mentioned by the beneficiary. There is always a margin for error when you are verifying something manually, which is why we will ensure all pincodes are mapped,” said a senior health ministry official, asking not to be named. In the case of the first problem, this person explained, authorities would need to wait till all 100 people in one session are vaccinated before they can report the side effects, which could lead to a delay. “It has, therefore, been decided to make modifications in the app to allow real-time feeding of adverse event report post vaccination,” said the official.

According to Krishna district collector Imtiaz Ahmed, the drills for vaccination centres were held in teams of five. “In all, three chambers were identified for the exercise – registration of beneficiaries in the first chamber, vaccination in the second chamber and evaluation in the third chamber,” he said.

There were five vaccination centres for the drill in the district, comprising 25 health care workers.

The exercise was videotaped at all five centres. “Reports would be submitted to state- and district-level task forces,” Ahmed said, adding that the state task force will review the feedback to guide further actions and send it to the Union ministry of health and family welfare.

An official in Punjab said while Monday’s exercise included mock registration of volunteers, Tuesday is when they will be called for the vaccination drill. “On the first day of the dry run, 25 health beneficiaries were called at each site to check the data entry in Co-WIN app, which is the online portal for monitoring of vaccine delivery,” said Punjab’s nodal officer for Covid-19, Dr Rajesh Bhaskar.

Data of 300 health beneficiaries was entered in the portal and all beneficiaries received a message on their mobile phones about the successful registration, Bhaskar said. “The successful registration also showed the proper creation of session sites and its allocation, linking and management. Now, on Tuesday, these 300 beneficiaries will visit their assigned sites in their district for online verification. After completing the verification, we will enter the data in the Co-WIN app that they have successfully reported at the health centre. Once we will give them vaccine shots, we will enter that vaccine has been provided to the health beneficiary, to avoid miss or repetition,” he said. “The dry run is an exercise to assess the entire process of vaccination as to how it will reach the end user through our cold chains,” he added. “We will identify the challenges, once the drive is complete. We will make changes in the plan, if required, so that the final process gets completed without faults,” he added.

Covid-19: What you need to know today (Hindustan Times: 20201229)

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

Mumbai, ravaged by the coronavirus disease pandemic – 290,914 cases and 11,076 deaths till Sunday evening – has seen a 50-85% reduction in incidence of dengue, H1N1 flu, gastroenteritis and leptospirosis, infective diseases that plague the city during and after the monsoon every year, according to HT’s Mumbai health reporters. October is one of the unkindest months in India’s commercial capital, with the heat and humidity combining to make it very uncomfortable, and also extremely conducive to the propagation of the diseases named above, but this time, the city seems to have been spared, courtesy an unlikely savior – Covid-19. The safety protocols associated with the coronavirus disease – frequent hand washing, wearing masks, being socially distant, eating mostly home-cooked food – and the restrictions the pandemic has forced upon us, in terms of travelling (it’s so easy to catch a flu on a flight)

or even moving about appear to have helped. Mumbai won't be the first region to have caught a lucky break from Covid-19, though.

In July, The Wall Street Journal reported that the southern hemisphere – it usually sees more cases in its winter, which begins around late May and early June – was seeing very few cases of influenza. The report pointed to a 95% drop in flu cases in Chile (at the time the report was written), and a 64% decline in Argentina. In Australia (a country that usually bears the brunt of influenza), a two-week period in the second half of June, saw a 99% drop in flu cases. The report quoted experts who attributed the fall to restrictions that were in place to halt or slow the spread of Covid-19. The near-absence of international travel was cited by some of them as one of the main reasons behind the steep fall in influenza cases, but they also mentioned other newly acquired human habits (hand washing, wearing masks) as contributory factors.

In mid-December, Nature reported a similar situation in the northern hemisphere where “the levels of many common seasonal infections remain extremely low.” The report, which acknowledged that the southern hemisphere almost completely evaded seasonal influenza added: “The patchwork of responses intended to fight the pandemic – from temporary lockdowns to mask wearing, social distancing, enhanced personal hygiene and reduced travel – has had a huge impact on other common respiratory illnesses too.” The same report, using data from the FluNet global influenza surveillance system, showed that even the last flu season (2019-20) was cut short by measures announced to fight Covid-19, with the number of cases tapering off in April. Interestingly, the Nature report adds that the viruses that cause the common cold, rhinoviruses, do not seem to be affected greatly – mask or no mask, and whether you wash your hands or not, you are going to catch that cold.

India typically sees a surge in influenza cases around this time of the year. This year, anecdotal evidence from Delhi, and the data from Mumbai suggest there have not been as many cases as there usually are. But the data from Mumbai is also revealing – it shows that basic hygiene is among the best prophylactics for a variety of infective diseases.

Post script: A paper published on the pre-print server medRxiv by researchers from Yale (including Akiko Iwasaki) shows that the timing of a body's immune response is perhaps more important than its magnitude when it comes to fighting off Covid-19. According to the paper, which is based on a study of 209 Covid-19 patients (ranging from asymptomatic to those with severe infections), those whose immune systems produced neutralising antibodies within 14 days of turning symptomatic had a much higher chance of recovery than those whose systems produced these antibodies after 14 days (even if they did more). As Iwasaki pointed out on Twitter, this means that any antibody treatment (such as the use of monoclonal antibodies) will therefore have to be used early in the treatment cycle to be successful.

Coronavirus situation in India

Easing off: On coronavirus situation in India (Hindustan Times: 20201229)

India's COVID-19 case and fatality rates have fallen from the peaks reached in September

<https://www.thehindu.com/opinion/editorial/easing-off-on-coronavirus-situation-in-india/article33439727.ece>

Vaccine (The Asian Age: 20201229)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=15313358>

■ Immunisation trials held in AP, Assam, Gujarat, Punjab

Centre starts vaccine dry run in four states

AGE CORRESPONDENT
NEW DELHI, DEC. 28

Center on Monday began a dry run in four states — Andhra Pradesh, Assam, Gujarat and Punjab — for Covid-19 immunisation. The effort is to check roll out procedures, preparedness, cold storage, transportation arrangement and management of possible adverse events after vaccination etc as the government gets set to give license to vaccine companies for launching their products in India.

India on Monday recorded a 7 per cent jump in daily fresh cases with 20,021 new detections as overall cases of Covid-19 crossed 1.02 crore. The deaths so far has been about 1.48 lakh out of which 279 fatalities were in the last 24 hours. India's Covid-19 recoveries rose to 97,82,669 on Monday and it exceeded active cases by more than 95 lakh.

Meanwhile, the Task Force on Genome Sequencing has suggested Epidemiological Surveillance of all passengers who have arrived in India since November 23. In addition, 5 per cent samples of all daily detected Covid-19 positive cases in the states and UTs will be sent for genome sequenc-

Odisha: 62 returnees from UK untraceable

AKSHAYA KUMAR SAHOO
BHUBANESWAR, DEC. 28

62 travellers who returned to Odisha from the United Kingdom (UK) recently have reportedly gone untraceable.

The disappearance of the returnees has sent alarm bells ringing among the state's health officials and the authorities engaged in the battle against Covid-19 especially in the background of fears that some of them might be carrying the deadly mutant strain of the virus.

Dr Niranjana Mishra, state director of the public health department on Monday said that around

181 travellers returned to the state from the UK between November 30 and December 20, 2020. Of the total returnees, 119 persons underwent the Covid-19 test in different phases and six of them tested positive for Coronavirus.

"It appears the 62 returnees had either given wrong address or telephone numbers in the declaration forms which has resulted in their tracing or contacting difficult," said Dr Mishra.

He, however, added that there was no need to panic as all the 62 persons have already completed the 14-day quarantine period, irrespective of their whereabouts.

ing. In case the UK variant or any other variant mutation is detected in any sample, the virus will be sent to notified Covid Virus Repositories for isolating the virus and further culturing.

"The sudden outbreak of a new SARS-CoV-2 variant in the UK requires India to increase viral Genomic surveillance in order to understand the spread of the virus in a rapid and robust manner. The proposed Indian SARS-CoV-2 Genomics Consortium will help to expand whole genome sequencing of SARS-CoV-2 virus across the nation, aiding our

understanding of how the virus spreads and evolves. Any changes to the genetic code, or mutations, can be observed in the samples," the Task Force said in a report.

"The data from the genome sequencing laboratories will be analysed as per the field data trends to study the linkages (if any) between the genomic variants and epidemiological trends. This will help to understand super spreader events, outbreaks and strengthen public health interventions across the country to help in breaking the chains of transmission. Linking this data with the IDSP epi data and patient's symptoms will allow us to better understand the viral infection dynamics, morbidity and mortality trends," it added.

Meanwhile, the Union home ministry said the Covid-19 restrictions on various activities will continue till January 31, 2021.

"While there has been a continuous decline in the active and new cases, there is need to maintain surveillance, containment and caution, keeping in view the surge in cases globally, and emergence of a new variant of the virus in the UK," MHA said in a statement.

Protein

Protein tells developing cells to stick together (New Kerala: 20201229)

<https://www.newkerala.com/news/2020/224192.htm>

Tohoku University scientists have, for the first time, provided experimental evidence that cell stickiness helps them stay sorted within correct compartments during development.

How tightly cells clump together, known as cell adhesion, appears to be enabled by a protein better known for its role in the immune system. The findings were detailed in the journal *Nature Communications*.

Scientists have long observed that not-yet-specialised cells move in a way that ensures that cell groups destined for a specific tissue stay together.

In 1964, American biologist Malcolm Steinberg proposed that cells with similar adhesiveness move to come in contact with each other to minimise energy use, producing a thermodynamically stable structure. This is known as the differential adhesion hypothesis.

"Many other theoretical works have emphasized the importance of differences in cell-to-cell adhesion for separating cell populations and maintaining the boundaries between them, but this had not yet been demonstrated in living animal epithelial tissues," said Erina Kuranaga of Tohoku University's Laboratory for Histogenetic Dynamics, who led the investigations.

"Our study showed, for the first time, that cell sorting is regulated by changes in adhesion," added Kuranaga.

Kuranaga and her team conducted experiments in fruit fly pupae, finding that a gene, called Toll-1, played a major role in this adhesion process.

As fruit flies develop from the immature larval stage into the mature adult, epithelial tissue-forming cells, called histoblasts, cluster together into several 'nests' in the abdomen. Each nest contains an anterior and a posterior compartment.

Histoblasts are destined to replace larval cells to form the adult epidermis, the outermost layer that covers the flies. The cells in each compartment form discrete cell populations, so they need to stick together, with a distinct boundary forming between them.

Using fluorescent tags, Kuranaga and her team observed the Toll-1 protein is expressed mainly in the posterior compartment. Its fluorescence also showed a sharp boundary between the two compartments.

Further investigations showed Toll-1 performs the function of an adhesion molecule, encouraging similar cells to stick together. This process keeps the boundary between the two compartments straight, correcting distortions that arise as the cells divide to increase the number.

Interestingly, Toll proteins are best known for recognizing invading pathogens, and little is known about their work beyond the immune system.

"Our work improves understanding of the non-immune roles of Toll proteins," said Kuranaga. She and her team next plan to study the function of other Toll genes in fruit fly epithelial cells.

Healthy pregnancies

Research highlights importance of forgotten organ in ensuring healthy pregnancies (New Kerala: 20201229)

<https://www.newkerala.com/news/2020/224153.htm>

An international research team led by the University of British Columbia (UBC) has uncovered for the first time the importance of a small gland tucked behind the sternum that works to prevent miscarriage and diabetes in pregnant women.

The organ in question is the thymus, identified in a study published today in the journal Nature as playing a significant role in both metabolic control and immunity in pregnancy.

How the immune system adapts to support mother and fetus has puzzled researchers for decades.

The study -- conducted by an international research team, including UBC's Dr. Josef Penninger -- reveals an answer. The researchers have found that female sex hormones instruct important changes in the thymus, a central organ of the immune system, to produce specialized cells called Tregs to deal with physiological changes that arise in pregnancy.

The researchers also identified RANK, a receptor expressed in a part of the thymus called the epithelium, as the key molecule behind this mechanism.

"We knew RANK was expressed in the thymus, but its role in pregnancy was unknown," said the study's senior author Dr. Penninger, a professor in the department of medical genetics and director of the Life Sciences Institute at UBC.

To get a better understanding, the authors studied mice where RANK had been deleted from the thymus.

"The absence of RANK prevented the production of Tregs in the thymus during pregnancy. That resulted in less Tregs in the placentas, leading to elevated rates of miscarriage," said the study's lead author Dr. Magdalena Paolino, assistant professor in the department of medicine at the Karolinska Institutet.

The findings also offer new molecular insights into the development of diabetes during pregnancy, known as gestational diabetes, a disease that affects approximately 15 per cent of women in pregnancy worldwide, and about which scientists still know little.

In healthy pregnancies, the researchers found that Tregs migrated to the mother's fat tissue to prevent inflammation and help control glucose levels in the body. Pregnant mice lacking

RANK had high levels of glucose and insulin in their blood and many other indicators of gestational diabetes, including larger-than-average young.

"Similar to babies of women with diabetes in pregnancy, the newborn pups were much heavier than average," said Dr. Paolino.

The deficiency of Tregs during pregnancy also resulted in long-lasting, transgenerational effects on the offspring. The pups remained prone to diabetes and overweight throughout their life spans.

Giving the RANK-deficient mice thymus-derived Tregs isolated from normal pregnancies reversed all their health issues, including miscarriage and maternal glucose levels, and also normalized the body weights of the pups.

The researchers also analyzed women with diabetes in pregnancy, revealing a reduced number of Tregs in their placentas, similar to the study on mice.

"The discovery of this new mechanism underlying gestational diabetes potentially offers new therapeutic targets for mother and fetus in the future," said co-author Dr. Alexandra Kautzky-Willer, a clinician-researcher based at the Medical University of Vienna.

"The thymus changes massively during pregnancy and how such rewiring of an entire tissue contributes to a healthy pregnancy has been one of the remaining mysteries of immunology," said Dr. Penninger.

"Our work over many years has now not only solved this puzzle -- pregnancy hormones rewire the thymus via RANK -- but uncovered a new paradigm for its function the thymus not only changes the immune system of the mother so it does not reject the fetus, but the thymus also controls metabolic health of the mother. This research changes our view of the thymus as an active and dynamic organ required to safeguard pregnancies," said Dr. Penninger.

Coronavirus (Hindustan: 20201229)

https://epaper.livehindustan.com/imageview_541322_51895350_4_1_29-12-2020_5_i_1_sf.html

पहचानिए, आपके बच्चे में कोरोना से अवसाद के लक्षण तो नहीं

नई दिल्ली | हिन्दुस्तान ब्यूरो

अगर बच्चा मां से ज्यादा चिपक रहा है तो प्यार ही नहीं, कोरोना से अवसाद की निशानी भी हो सकती है। इसके अलावा अनायास बिस्तर गीला करना, चिड़चिड़ापन और डरावने सपने जैसे बदलाव पिछले 10 महीने में बच्चों के व्यवहार में आ रहे हैं।

ब्रिटेन के सेंटर फॉर मेंटल हेल्थ के मुताबिक, अकेले ब्रिटेन में कोविड के चलते एक करोड़ लोगों को मानसिक स्वास्थ्य सहायता की जरूरत है। इनमें 15 लाख बच्चे भी शामिल हैं।

सर गंगाराम अस्पताल के मनोचिकित्सक डॉ. राजीव मेहता के अनुसार, कोरोना काल में बच्चों पर मानसिक दबाव बढ़ा है। ऑनलाइन पढ़ाई और दोस्तों से न मिल पाने ने भी असर डाला है। इस अवधि में



01 करोड़ लोग दिमागी रूप से कमजोर पड़े कोविड के चलते

अभिभावक-बच्चे हमेशा साथ रहे हैं तो उसका दबाव भी काफी अधिक है। कुछ मामलों में घर की आर्थिक स्थिति खराब होने का असर भी बच्चों के मानसिक स्वास्थ्य पर पड़ा है।

ब्रिटेन के सेंटर फॉर मेंटल हेल्थ की रिपोर्ट में खुलासा

लांसेट की एक अन्य रिपोर्ट के मुताबिक, भारत में कोविड ने प्रत्यक्ष रूप से किशोरों को भले नुकसान न पहुंचाया हो लेकिन उनके मन पर भारी मानसिक दबाव बना दिया है।

गोद से नहीं उतर रहा बच्चा तो ये अवसाद का इशारा

गतिष्क अब तक बदलाव से लड़ रहा

ब्रिटेन के रॉयल कॉलेज ऑफ साइकैट्री के प्रेसिडेंट डॉक्टर एड्रिन जेम्स का कहना है कि कोविड के कारण पैदा हुई सामाजिक परिस्थितियों ने कई लोगों के दिमाग का तनावना बदल दिया है। कोविड, लॉकडाउन और गरीबी की तिकरी मार को शरीर तो झेल गया मगर

मस्तिष्क अब भी इससे लड़ रहा है। जेम्स ने ये चेतावनी ऐसे समय में जारी की है जब ब्रिटेन में कोरोना के मामले लगातार बढ़ रहे हैं। पूरी दुनिया में सरकारों का पूरा ध्यान कोरोना के प्रसार को रोकने में लगा है, मगर दूसरी ओर बड़े पैमाने पर मनोरोगी पैदा होने की जमीन तैयार हो रही है।

ऐसे पहचानें बच्चों में अवसाद

- 1** सेंटर ऑफ डिसेज कंट्रोल के मुताबिक, अगर बच्चा बिस्तर गीला करने लगा है, तो इसे इग्नोर ना करें। यह मदद मांगने का संकेत है।
- 2** बच्चा सामान्य से ज्यादा चिड़चिड़ा नजर आ रहा है, गुस्सा कर रहा है तो इसका मतलब है वह तनाव की ओर बढ़ रहा है।
- 3** बच्चा अगर डरावने सपने आने की शिकायत कर रहा है, तो वह सबको निशयस लेवल पर परेशान है।
- 4** शिशुओं में सबसे मां से जरूरत से ज्यादा चिपके रहना। अगर बच्चा गोद से नहीं उतर रहा, तो यह खतरों की घंटी हो सकती है।

इस तरह कर सकते हैं मदद

- अपने बच्चे को भरोसा दिलाए कि सब ठीक है। उसे प्यार करें, गले लगाएं और हाथ पकड़ें। उसे बताते-जताते रहें कि आप उसे कितना प्यार करते हैं।
- तय करें कि आपके पास बच्चों को व्यस्त रखने के लिए सार्थक गतिविधियां हों। बच्चे बेहतर सामना करते हैं जब वे दूसरों की मदद करते हैं व व्यस्त रहते हैं।
- बच्चे की प्रशंसा करने के अवसरों की तलाश करें। जितना अधिक आप उनकी प्रशंसा करते हैं, उतना ही अधिक वे फिर से करने की संभावना रखते हैं।
- बच्चे के साथ धैर्य रखें। व्यवहार में परिवर्तन, आवश्यक होने की इच्छा या ऊब होने या कुछ भी न करने की शिकायत को समझने की कोशिश करें।

Vaccination (Hindustan: 20201229)

https://epaper.livehindustan.com/imageview_541322_51896900_4_1_29-12-2020_5_i_1_sf.html

74 लाख कोरोना टीका रखने की तैयारी पूरी



नई दिल्ली | वरिष्ठ संवाददाता

राजधानी में वैक्सीन के भंडारण की क्षमता वाले दो केंद्रों में से एक केंद्र सोमवार को पूरी तरह तैयार हो गया। राजीव गांधी सुपरस्पेशलिटी अस्पताल में वैक्सीन की 74 लाख डोज सुरक्षित रखने की क्षमता हासिल कर ली गई है। सोमवार को यहां सभी 90 डीप फ्रीजर उपलब्ध हो गए।

अस्पताल के चिकित्सा निदेशक डॉक्टर बीएल शेरवाल के मुताबिक अस्पताल में अलग इमारत में बनाया गया वैक्सीन भंडारण केंद्र पूरी तरह तैयार है। अब सिर्फ यहां वैक्सीन पहुंचाने का इंतजार है।

अस्पताल में बनाए गए वैक्सीन भंडारण केंद्र में 37 लाख लोगों के लिए वैक्सीन रखने की क्षमता है। दरअसल, एक व्यक्ति को वैक्सीन की दो ही डोज लगाई जाएंगी। इसलिए 74 लाख डोज से 37 लाख लोगों को पूरी तरह वैक्सीन लगाई जा सकती है।



90 डीप फ्रीजर वैक्सीन रखने के लिए सोमवार को उपलब्ध करा दिए गए

37 लाख लोगों को देने के लायक वैक्सीन यहां सुरक्षित रखा जा सकता है

पहले पांच दिन सिर्फ स्वास्थ्यकर्मियों को टीका

दिल्ली में 1000 स्थानों पर बने बूथ पर रोज सुबह 9 से शाम 5 बजे तक टीका लगाया जाएगा। पहले पांच दिनों में सबसे पहले तीन लाख स्वास्थ्यकर्मियों को टीका दिया जाएगा। इसके बाद अगले 10 दिनों में अन्य छह लाख फ्रंट लाइन पर काम करने वाले कर्मचारियों को भी टीका दिया जाएगा।

कोविड आईसीयू बेड 60% करेगी सरकार

नई दिल्ली | प्रमुख संवाददाता

दिल्ली सरकार ने सोमवार को उच्च न्यायालय में कहा कि राजधानी के 33 निजी अस्पतालों में कोरोना मरीजों के लिए आईसीयू बेड की संख्या 60 फीसदी करने का निर्णय लिया है। अब तक 80 फीसदी आईसीयू बेड कोविड मरीजों के लिए आरक्षित हैं।

न्यायमूर्ति सुब्रमण्यम प्रसाद की पीठ के समक्ष सरकार की तरफ से बताया

फैसला

- अभी 80% आईसीयू बेड कोरोना मरीजों के लिए आरक्षित है
- आठ जनवरी को अगली सुनवाई पर रिपोर्ट पेश करने के निर्देश

गया कि 27 दिसंबर को उन्होंने यह निर्णय दो सदस्यीय समिति, जिनमें अखिल भारतीय आयुर्विज्ञान संस्थान (एम्स) के निदेशक एवं नीति आयोग

इस तरह दी जाएगी टीकाकरण की सूचना

दिल्ली में 50 साल या इससे अधिक आयु वाले लोगों और पहले से दूसरी बीमारियों से पीड़ित ऐसे लोगों को भी टीका दिया जाएगा, जिन्हें कोरोना से सबसे अधिक खतरा है। इन लोगों की पहचान के बाद इन्हें कोविन एप पर जाकर पंजीकरण कराना होगा। एप पर पंजीकरण के बाद एसएमएस के जरिए सूचना दी जाएगी कि उन्हें टीका लगवाने किस बूथ पर कब आना है।

20 मई के बाद कोरोना के सबसे कम मामले

दिल्ली में सोमवार को 20 मई के बाद कोरोना के सबसे कम मामले आए हैं। संक्रमण दर भी घटकर 0.98 रह गई है। स्वास्थ्य विभाग के अनुसार सोमवार को 564 नए मामलों की पुष्टि हुई और 959 मरीजों को छुट्टी दी गई, जबकि 21 मरीजों ने दम तोड़ दिया। दिल्ली में कोरोना से मृत्युदर 1.68 फीसदी है। दिल्ली में कोरोना के 6297 सक्रिय मरीज हैं।

के सदस्य शामिल हैं, से विचार-विमर्श के बाद किया है। पीठ ने इस मामले में सुनवाई के लिए अब आठ जनवरी की तारीख तय की है। पीठ ने कहा है कि सरकार एक बार फिर अपने निर्णय पर विचार कर वर्तमान हालात पर अगली तारीख पर प्रगति रिपोर्ट पेश करे। एडिशनल सॉलिसिटर जनरल संजय और स्थायी वकील संजय घोष ने पीठ को बताया कि आईसीयू बेड के आरक्षण पर पांच जनवरी को बैठक रखी गई है।

Health Care Services (Hindustan: 20201229)

https://epaper.livehindustan.com/imageview_541322_51897234_4_1_29-12-2020_5_i_1_sf.html

कोविड आईसीयू बेड 60% करेगी सरकार

नई दिल्ली | प्रमुख संवाददाता

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न्यायमूर्ति सुब्रमण्यम प्रसाद की पीठ के समक्ष सरकार की तरफ से बताया

फैसला

- अभी 80% आईसीयू बेड कोरोना मरीजों के लिए आरक्षित है
- आठ जनवरी को अगली सुनवाई पर रिपोर्ट पेश करने के निर्देश

गया कि 27 दिसंबर को उन्होंने यह निर्णय दो सदस्यीय समिति, जिनमें अखिल भारतीय आयुर्विज्ञान संस्थान (एम्स) के निदेशक एवं नीति आयोग

के सदस्य शामिल हैं, से विचार-विमर्श के बाद किया है। पीठ ने इस मामले में सुनवाई के लिए अब आठ जनवरी की तारीख तय की है। पीठ ने कहा है कि सरकार एक बार फिर अपने निर्णय पर विचार कर वर्तमान हालात पर अगली तारीख पर प्रगति रिपोर्ट पेश करे। एडिशनल सॉलिसिटर जनरल संजय और स्थायी वकील संजोय घोष ने पीठ को बताया कि आईसीयू बेड के आरक्षण पर पांच जनवरी को बैठक रखी गई है।