



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Friday 2020109

COVAX alliance for global distribution of its COVID-19 vaccines

China joins COVAX alliance for global distribution of its COVID-19 vaccines

China has already promised access and loans for potential vaccines to several lower and middle-income nations (The Tribune: 2020109)

<https://www.tribuneindia.com/news/health/china-joins-covax-alliance-for-global-distribution-of-its-covid-19-vaccines-153250>

China joins COVAX alliance for global distribution of its COVID-19 vaccines
China has officially joined the World Health Organization's (WHO) COVAX alliance to equitably distribute COVID-19 vaccines around the globe

China has officially joined the World Health Organization's (WHO) COVAX alliance to equitably distribute COVID-19 vaccines around the globe, ending speculation that it wants to supply them on its own to developing countries for its diplomatic agenda.

According to the WHO, countries should join the COVID-19 Vaccine Global Access Facility (COVAX Facility) by September 18 but not later than October 9 with upfront payments.

“On October 8, China and Gavi, the Vaccine Alliance, signed an agreement, officially joining COVAX,” Chinese Foreign Ministry spokesperson Hua Chunying said in a statement on Friday.

“This is an important step China has taken to uphold the concept of a shared community of health for all and to honour its commitment to turn COVID-19 vaccines into a global public good,” she said, apparently refuting reports that China plans to distribute the vaccines to developing countries on its own ahead of developed countries.

WHO announced in August that “172 economies are now engaged in discussions to potentially participate in COVAX, a global initiative aimed at working with vaccine manufacturers to provide countries worldwide equitable access to safe and effective vaccines, once they are licensed and approved”.

China has already promised access and loans for potential vaccines to several lower and middle-income nations – a move the Chinese leadership may see as a better bet for its diplomatic agenda than joining the WHO-backed scheme, Hong Kong-based South China Morning Post reported on September 23.

Elaborating on China's decision to join the global alliance, Hua said in her statement, “currently, the COVID-19 pandemic still poses a severe threat to the safety and health of people in all countries”.

“China continues to focus on ensuring that developing countries have equal access to appropriate, safe and effective vaccines. To that end, we have solemnly pledged to make vaccines developed and deployed by China a global public good, which will be provided to developing countries as a priority,” she said.

“Therefore, China has maintained close communication with COVAX with a positive attitude towards joining it. Even when China is leading the world with several vaccines in advanced stages of R&D and with ample production capacity, it still decided to join COVAX,” she said.

“We are taking this concrete step to ensure equitable distribution of vaccines, especially to developing countries, and hope more capable countries will also join and support COVAX. China will also strengthen vaccine cooperation with relevant countries through the COVAX network,” she said.

“China will continue to work together with COVAX partners and contribute its share to the global fight against the pandemic to safeguard all human beings' safety and health,” she said.

China has roped in more than a dozen countries to conduct the final phase trials of Chinese-made experimental COVID-19 vaccines and even started vaccinating thousands of emergency workers, according to official media reports here.

Yang Sheng, Deputy Director of the National Medical Products Administration's drug registration bureau, said four China-developed COVID-19 vaccines have begun the final stage of human trials overseas after obtaining approval from foreign authorities.

China has been focusing on developing five types of vaccines, and each method has at least one entering clinical trials. In total, 11 vaccine candidates are in different stages of testing, Yang has been quoted by the official media earlier.

Zheng Zhongwei, head of China's vaccine development task force said China's annual capacity to make COVID-19 vaccines was expected to reach 610 million doses this year and one billion doses by 2021.

WHO said nine candidate vaccines are currently being evaluated for inclusion in the COVAX Facility.

They include two from China, two from the US, one from the Republic of Korea, one from the United Kingdom of Great Britain and Northern Ireland and one global, multi-manufacturer partnership. Two of these are in Phase I trials, two are tech transfers and the remainder are at the discovery stage.

WHO said earlier that a collaboration between Serum Institute of India (SII), Gavi and the Bill & Melinda Gates Foundation will ensure up to 100 million doses of AstraZeneca or Novavax's candidate vaccines.

“If successful, (the vaccines) will be available to low- and middle-income economies through the COVAX Facility at just USD 3 per dose. The arrangement also provides an option to secure additional doses if COVAX sees a need for it,” a WHO announcement in August said. —PTI

COVID-19 vaccine

**Moderna to apply for EU's rolling approval for COVID-19 vaccine
Drug-maker says the ongoing US trial of its candidate is on track for a data
readout by Noember
(The Tribune: 2020109)**

<https://www.tribuneindia.com/news/health/moderna-to-apply-for-eus-rolling-approval-for-covid-19-vaccine-152869>

Moderna to apply for EU's rolling approval for COVID-19 vaccine

Photo for representational purpose only.

Moderna Inc will soon apply for real-time reviews of its experimental COVID-19 vaccine in Europe, the drug developer said on Thursday, days after the EU health regulator launched rolling reviews of shots from its rivals.

The drug developer said it was in talks with European countries and would submit the same data it plans to submit to the US Food and Drug Administration for authorisation.

The European Medicines Agency earlier this week launched real-time reviews of COVID-19 vaccines being developed by US drug-maker Pfizer and Germany's BioNTech, following a similar announcement for AstraZeneca's.

Real-time reviews could speed up the process of approving a successful vaccine, by allowing researchers to submit findings in real time, without waiting for studies to conclude.

Moderna, one of the furthest along in the US race for a COVID-19 vaccine, said the ongoing US trial of its candidate, MRNA-1273, was on track for a data readout by November.

The company said it would not enforce patents related to its experimental COVID-19 vaccine during the pandemic and would not pursue any litigation against companies that make use of its technology after the coronavirus outbreak ends.

The decision was taken to allow other drug-makers to develop shots using the company's technology, said Moderna executives.

The company also said it was willing to license the technology behind the vaccine after the pandemic.

Earlier on Thursday, the Defense Advanced Research Projects Agency (DARPA) awarded Moderna \$56 million to develop mobile manufacturing units for rapidly producing vaccines and therapeutics. Reuters

Asthma patients

Asthma patients less likely to die from virus; new test better at telling who is still infectious

Asthma patients less likely to die from virus; new test better at telling who is still infectious

Photo: Thinkstock (The Tribune: 2020109)

<https://www.tribuneindia.com/news/health/asthma-patients-less-likely-to-die-from-virus-new-test-better-at-telling-who-is-still-infectious-152787>

The following is a roundup of some of the latest scientific studies on the novel coronavirus and efforts to find treatments and vaccines for COVID-19, the illness caused by the virus.

Asthma patients appear less likely to die from COVID-19. Patients with asthma who become infected with the new coronavirus appear to have no higher risk of hospitalisation or need for mechanical breathing assistance compared to COVID-19 patients without asthma - and the asthma patients are less likely to die from the disease, a new study suggests.

Researchers at a Boston healthcare system studied 562 asthma patients with COVID-19 and 2,686 similarly-aged COVID-19 patients without asthma.

The two groups were hospitalized at similar rates (18% to 21%) and had similar need for mechanical ventilation (3% in the asthma group vs 4%). But the asthma patients were 70% less likely to die from the virus, researchers reported. None of the 44 patients with severe asthma died.

"Although the factors underlying these findings are not yet known, important considerations include: possible biologic mechanisms ... and possible protective effects of asthma medications (such as corticosteroids)," the researchers said in a report posted on Monday on medRxiv ahead of peer review.

New test better at identifying who is still infectious Becton Dickinson and Co's BD Veritor System for rapid detection of the novel coronavirus is better than gold standard RT-PCR lab tests at distinguishing between infectious and non-infectious virus in swab samples obtained within a week of symptom onset, according to a new study. One drawback of the RT-PCR (real-time polymerase chain reaction) is that patients can test positive even after they are no longer infectious, because the tests detect small amounts of viral RNA that most likely represent infected cells that have died. Newer "antigen-based" tests look for viral proteins instead of RNA.

The antigen-based approach could potentially "be used to identify and isolate contagious individuals more effectively than current RNA-based (RT-PCR) testing," coauthor Celine Roger-Dalbert of BD Life Sciences told Reuters. "Although it may not replace RNA-based testing, because we still need to identify anyone who was infected in order to trace the spread of the virus, it should help make isolation more efficient and effective as a public health intervention used to slow down the spread of COVID-19," she added. The study results were published on Monday on medRxiv ahead of peer review.

Intubation may be less risky for doctors than feared Placing a tube in a patient's airway, or removing it, is thought to be one of the highest-risk procedures for medical staff, because of the very close proximity to air being expelled through the mouth of a potentially infected person. But in operating rooms, at least, these procedures might present less of a risk of virus transmission than has been feared. In operating room experiments in anesthetized patients, intubation and extubation produced far fewer potentially virus-carrying aerosols than expected. Overall, 19 tube insertions generated about one thousandth of the aerosol generated by a single cough, the researchers reported on Tuesday in the journal *Anesthesia*.

Fourteen tube removals produced more aerosols, but still less than 25% of that produced by a voluntary cough. The same might not be true in an emergency room setting. Surgical teams presently wear respirators and high level personal protective equipment to avoid aerosols. After each case, special cleaning is undertaken, which reduces operating room turnover and increases waiting times for operations, the authors say. The findings call for "reappraisal of what constitutes an aerosol-generating procedure and the associated precautions for routine anesthetic airway management," they said.

Full beard need not rule out tight face mask seal Frontline healthcare workers caring for COVID-19 patients must wear respirator face masks that form a tight seal with the skin, but full beards can make that impossible.

Doctors in the UK have come up with a solution. The answer, outlined in a report published on Saturday in the *Journal of Hospital Infection*, involves covering the beard over the chin and cheeks with an under-mask elastic rubber sheet (as is used in yoga and pilates) and tying it in a knot at the top of the head. The technique was pioneered by a transplant surgeon and adopted by 32 bearded British healthcare providers, 30 of whom passed respirator fit tests, according to the report.

"Bearded individuals who are unable to shave may have a new innovative technique to be able to wear respirator masks," the authors write. While noting it was tested in a small number of people, the authors said, "it provides encouraging results to pave way for larger scale studies."

Bandage with magnetic nanofibres

Indian researchers develop bandage with magnetic nanofibres that kill skin cancer cells with heat

Skin cancer is caused mainly due to excessive exposure to ultraviolet rays from the sun. (The Tribune: 2020109)

<https://www.tribuneindia.com/news/health/indian-researchers-develop-bandage-with-magnetic-nanofibres-that-kill-skin-cancer-cells-with-heat-152769>

Indian researchers develop bandage with magnetic nanofibres that kill skin cancer cells with heat

Skin cancer is caused mainly due to excessive exposure to ultraviolet rays from the sun. Thinkstock photo.

Researchers from the Indian Institute of Science (IISc) said they have developed a non-invasive bandage made with magnetic nanofibres to treat skin cancer by administering heat to the tumour cells.

Skin cancer is caused mainly due to excessive exposure to ultraviolet rays from the sun.

There are two types: Melanoma, which develops from pigment-producing cells in the skin called melanocytes, and non-melanoma, which develops from other skin cells, IISc said.

Though non-melanoma skin cancer is more widespread, melanoma is malignant and has a higher mortality rate, according to Bengaluru-based IISc.

Common treatments for skin cancer include surgery, radiation therapy, and chemotherapy.

But these treatments and other conventional therapies have limitations.

A promising alternative that has emerged to treat skin cancer is hyperthermia, which involves applying heat to the affected tissues.

In recent years, researchers have been working on developing ways of delivering heat to the tumour tissues so that cancer cells are targeted selectively and effectively, IISc noted in a statement on Thursday.

One such technology is called magnetic hyperthermia, in which magnetic nanoparticles are used to heat the tumours by using an external alternating current magnetic field (AMF).

But it is difficult to achieve uniform heating of the affected tissues using such magnetic nanoparticles because of uncontrolled aggregation.

Besides, they can accumulate in the human body and induce toxicity.

Now, researchers from the Centre for BioSystems Science and Engineering (BSSE) and the Department of Molecular Reproduction, Development and Genetics (MRDG) at IISc have developed a bandage with a unique blend of magnetic nanoparticles fabricated using a method called electrospinning.

It comprises nanoparticles made from an oxide of iron, Fe₃O₄, and a biodegradable polymer called polycaprolactone (PCL) pasted on surgical tape.

The magnetic material generates heat when it is subjected to a high-frequency oscillating magnetic field.

In order to investigate whether the heat generated and dissipated by the magnetic bandage can treat skin cancer, the researchers did two experiments: One was in vitro on human cancer cell lines and the other was in vivo on mice with artificially-induced skin cancer.

"The protocol used to prepare the PCL-Fe₃O₄ fibrous mat-based bandage took a little more than two months to optimise; however, the in vitro and in vivo tests that involved the testing of the magnetic thermal therapy took quite some time to optimise," said Kaushik Suneet, a former project associate at BSSE and the first author of the study.

In both experiments, the heat generated by applying AMF to the nanofibrous magnetic bandage killed the cancer cells successfully.

Moreover, in the in vivo experiment, the healthy tissue remained intact with no signs of burns, inflammation, or thickening.

"The elevated temperature at the treatment site enables heat to penetrate the tumour cells, rupturing the compact random vasculatures (a network of blood vessels) of the tumours," explained Shilpee Jain, who was a DST-INSPIRE Faculty Fellow at BSSE when the study was conducted and is a senior author of the paper.

"(In contrast), the normal healthy cells, owing to their organised open vasculatures, dissipate the heat to maintain normal temperatures, and so remain unharmed." Though this novel treatment has been shown to be effective against skin cancer in lab experiments, it is still at a nascent stage of development as a clinical therapy, the statement said.

"Further studies are required to test the efficacy of this novel treatment method on a larger scale in rabbits, dogs and monkeys before employing it for pre-clinical and clinical applications," cautioned Jain.—PTI

Air quality

Grap to kick in with Covid crisis in the air Air quality stays in 'poor' category as weather changes, stubble burning picks up in nearby fields (Hindustan Times:20201090

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

Fight against pollution

A look into the city's Graded Response Action Plan to fight air pollution

- STAGE 1** MODERATE-TO-POOR QUALITY AIR (PM2.5 above 61µg/m3 or PM10 above 101µg/m3)
 - Mechanized sweeping, washing roads with water
 - Enforcing ban on firecrackers, increased scrutiny of vehicles for pollution standards
- STAGE 2** VERY POOR AIR (PM2.5 above 121 µg/m3 or PM10 above 351 µg/m3)
 - Ban on diesel generators
 - Parking fee to surge by 3-4 times
 - Stop use of coal/firewood in eateries
 - Urge people with respiratory or cardiac problems to stay inside
- STAGE 3** SEVERELY POLLUTED AIR (PM2.5 above 250µg/m3 or PM10 above 430µg/m3)
 - Increase frequency of road cleaning and washing
 - Shut down of brick kilns
 - Restrictions on operation of coal-based power plants in NCR
- STAGE 4** EMERGENCY (also known as severe+, PM2.5 above 300 µg/m3 or PM10 above 500µg/m3)
 - Ban entry of trucks (except for essential items)
 - Halt construction work
 - Begin odd-even road scheme for private vehicles

BEGINNING FROM OCT 15

Some of these measures will already kick in from October 15. These are:

- 1 BAN ON DIESEL GENERATORS**
- 2 WASHING OF ROADS**
- 3 NIGHT PATROLS AT HOT SPOTS**

Vatsala Shrangi

vasala.shrangi@htlive.com

New Delhi : The winter phase of the mechanism to tackle air pollution comes into force in Delhi-NCR from October 15 with a ban on diesel-run electricity generators, instructions for washing of roads and increased patrolling of known hot spots, authorities announced on

Thursday amid fears that this year's pre-winter pollution could be even harder to control than usual due to the Covid-19 pandemic.

The Graded Response Action Plan (Grap), is a set of curbs triggered in phases as the air quality deteriorates, which is typical of the October-November period. Farm fires in neighbouring states and cooling weather typically combine at this time of the year to blanket the region in smoke.

It includes strict measures such as a ban on the entry of heavy vehicles, the odd-even road rationing restrictions, and a halt of construction work – each of which are likely to be impractical at a time when the pandemic has exacted heavy economic costs and public transport has been seen as an infection risk.

“This winter, all agencies and state governments of Delhi-NCR must come together to try and not allow the need to bring in any additional emergency measures such as banning vehicles and construction. We recognise the economy is already under stress post-lockdown and therefore our combined effort must be to ensure there is no further disruption,” said Bhure Lal, the chairperson of Environment Pollution (Prevention and Control) Authority (EPCA), the agency set up by the Supreme Court to tackle the perennial problem.

According to Central Pollution Control Board (CPCB) data, the air quality in Delhi was in the “poor” zone for the second consecutive day on Thursday – typical for this time of the year. In the last four years, the air quality index (AQI) entered poor for the first time after the monsoons between September-end and first week of October.

Thursday's AQI was 208, slightly lower than Wednesday's 215. But these are the worst numbers seen since mid-June, and the trend of farm fires in Punjab and Haryana suggest the levels may deteriorate further soon.

According to observations from National Aeronautics and Space Administration (NASA) satellites, the number of farm fires in these two states in the last two months – at 2,636 -- has been the highest since 2014.

The situation becomes such that cities have been likened to a “gas chamber” and experts warn that such conditions are likely to exacerbate Covid-19 infections. Lal said the agency recognises the Covid-19 risk factor link. “Hence, efforts are required on the ground to prevent pollution levels from rising,” he said.

The EPCA head added that a ban on entry of trucks may be unlikely this year since most such vehicles appear to have affixed radio tags that can help identify whether they have paid the Environment Concession Charge or are indeed meant to enter Delhi, instead of merely passing through. “The RFID (radio frequency identification) system is working well at 13 entry points. We plan to direct the Delhi government to deploy officials with hand-held devices at the remaining border points to check that trucks not destined for Delhi do not enter the city. Also, with both the eastern and western peripheral expressways, the truck traffic load has decreased significantly.”

Stricter measures, however, have not been ruled out entirely and will depend on how bad the problem becomes, the authority decided at its Thursday meeting, according to a letter it sent to state authorities. Some measures that come into force from October 15 are meant for a more serious stage of air pollution, particularly the ban on diesel generators. Essential services such as hospitals will be exempted.

Medical experts reiterated the need to curb pollution in order to mitigate Covid-19 risks. “There are several studies from across the world that show pollution certainly has an impact on Covid-

19 related mortality. In Italy, there was 12% mortality in northern Italy as compared to 4.5% in the rest of the country. The study attributed it to high air pollution levels in the region. A study from Europe shows that 78% mortality was in regions with high Nitrogen Oxide levels. Another study from the US shows that every 1µg increase in PM 2.5 leads to an 8% increase in Covid-19 death rate,” said Dr GC Khilnani, former head of pulmonology at the All India Institute of Medical Sciences (AIIMS).

Environment experts said the number of farm fires seen in Punjab and Haryana seen till now suggests the pollution peak may come sooner than usual. “With burning starting early, it may turn out that when the pollution peaks between October-end and November 15, the activity has receded and may not contribute to the peak as much. However, this is to be watched. Secondly, this year since many people are still working from home, vehicular emission will be somewhat lower than last year and pollution levels may not turn so severe as it has in the past,” said Sagnik Dey, associate professor at the Centre for Atmospheric Sciences, IIT-Delhi.

He added that for a long-term measure, the four states -- Delhi, Haryana, UP and Punjab -- have to come together to draw up a plan to fight pollution. “Unless there is better coordination among these states, it will be difficult to bring down overall levels of pollution, as activities in all four states contribute to the pollution observed in Delhi every year,” he said.

On Thursday, Epca decided that large-scale construction projects such as on highways and for the Delhi Metro in Delhi-NCR will need to give an undertaking to the respective state pollution control boards that they will comply with dust-control norms.

Similarly, industries in the red and orange categories (classified as those with higher emissions) will be required to give an undertaking to the pollution boards that they will only use approved fuels. The Grap’s winter rules, which first were drawn up in 2017, will stay in force till March 31.

(With inputs from Vijdan Mohammad Kawoosa)

Covid-19: What you need to know today (Hindustan Times: 2020109)

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

October 7 saw a new record for the coronavirus disease (Covid-19): the highest number of daily cases around the world. According to worldometers.info, the world saw 343,386 new cases on Wednesday; according to the New York Times database, the number was marginally higher, 351,107. Countries may be seeing waves – the first wave seems to be over in India, and the number of daily cases has dipped – but the number of daily cases around the world continues to rise, powered, in many cases, by second waves that are, especially in some countries, steeper than the first. The world has seen around 36 million cases of Covid-19, and the numbers do not appear to be going down. Indeed, according to Johns Hopkins University’s Coronavirus Resource Centre, seven of the 10 countries with the highest number of daily cases currently are continuing to see a rise in their seven-day averages, an indication that case numbers are headed up in these.

The 10 countries currently with the highest number of daily cases are: India, the US, Brazil, the UK, France, Argentina, Russia, Mexico, Spain, and Colombia. Among these, only India,

Brazil, and Argentina are witnessing a fall in their seven-day averages (of daily cases). The rest are seeing a rise (including a sharp rise in some). Together, according to worldometer, these 10 countries accounted for 238,746 new cases of Covid-19 on October 7, or 70% of the world's cases that day.

As an aside, that level of concentration shouldn't surprise anyone: most Covid-19 cases have come from a few countries. The three countries worst affected by the pandemic, the US, India, and Brazil, account for 54% of all global cases so far (they also account for 44% of all deaths). And the top 10 countries by cases (marginally different from the top 10 countries based on current daily cases) account for 71% of all cases seen thus far. The countries in this list are: the US, India, Brazil, Russia, Colombia, Spain, Argentina, Peru, Mexico, and South Africa.

To return to the list of countries that are currently seeing the most cases, the seven whose seven-day average (of daily cases) is on the rise again account for 47% of daily cases in the top-10, and a third of all daily cases in the world on October 7. This is perhaps an indication that there will be no letting up in the increase in new cases around the world, even as countries in the northern hemisphere prepare for an onslaught of cases expected in the coming winter months.

According to worldometer, the seven-day average of daily cases on October 7 was 304,879, the highest it has ever been. There have been some dips in the trajectory of this metric over the months, but none very sharp; a fall in cases in one region has usually been more than offset by a rise in another.

These numbers establish a simple truth: it isn't over yet. As cities and states and countries open up, it's sometimes easy to forget or ignore the looming threat in the background. The continuing global march of the coronavirus disease reminds us of the severity of this threat. Election season has kicked off in India –the assembly elections in Bihar and bypolls in several states will be held shortly. The Union home ministry on Thursday allowed, with immediate effect, open-air political rallies in 12 poll-bound states (they were previously allowed from October 15). It's also the festive season in India with what is arguably the country's biggest festival, Deepavali, in mid-November. Restaurants are open. Cinemas will open soon. But India continues to see an average of 75,000 cases a day (the seven-day average on October 7 was 74,623).

The Jan Andolan (public campaign) launched by the government on Thursday needs to be seen in this context.

As Prime Minister Narendra Modi said on Twitter: "Let us always remember: wear a mask; wash hands; follow social distancing; practice "Do Gaj Ki Doori" [a distance of six feet]; together, we will succeed."

New hydrogel

New hydrogel can help repair damaged nerves: Study (New Kerala: 2020109)

<https://www.newkerala.com/news/2020/178299.htm>

Researchers have developed a stretchable conductive hydrogel that could someday be used to repair damaged nerves.

According to the study, published in the journal ACS Nano, injuries in which a peripheral nerve has been completely severed, such as a deep cut from an accident, are difficult to treat.

A common strategy, called autologous nerve transplantation, involves removing a section of the peripheral nerve from elsewhere in the body and sewing it onto the ends of the severed one.

However, the surgery does not always restore function, and multiple follow-up surgeries are sometimes needed.

The research team from Nanjing University in China wanted to develop an effective, fast-acting treatment that could replace autologous nerve transplantation.

For this purpose, they decided to explore conducting hydrogels -- water-swollen, biocompatible polymers that can transmit bioelectrical signals.

The researchers prepared a tough but stretchable conductive hydrogel containing polyaniline and polyacrylamide.

The crosslinked polymer had a 3D microporous network that, once implanted, allowed nerve cells to enter and adhere, helping restore lost tissue.

The team showed that the material could conduct bioelectrical signals through a damaged sciatic nerve removed from a toad. Then, they implanted the hydrogel into rats with sciatic nerve injuries.

Two weeks later, the rats' nerves recovered their bioelectrical properties, and their walking improved compared with untreated rats.

"Because the electricity-conducting properties of the material improve with irradiation by near-infrared light, which can penetrate tissues, it could be possible to further enhance nerve conduction and recovery in this way," the study authors wrote.

Pregnancy

Covid-19 has prolonged effect on many during pregnancy (New Kerala: 2020109)

<https://www.newkerala.com/news/2020/178263.htm>

Researchers have found that symptoms for pregnant women with Covid-19 can be prolonged, lasting two months or longer.

In the study, published in the journal *Obstetrics and Gynecology*, the research team analysed the clinical course and outcomes of 594 women who tested positive for the SARS-CoV-2 virus during pregnancy.

They found that the most common early symptoms for pregnant women were cough, sore throat, body ache and fever. Half of the participants still had symptoms after three weeks and 25 per cent had symptoms after eight weeks.

"We found that pregnant people with Covid-19 can expect a prolonged time with symptoms," said study senior author Vanessa L Jacoby from the University of California San Francisco in the US.

"Covid-19 symptoms during pregnancy can last a long time, and have a significant impact on health and wellbeing," Jacoby added.

While previous research on the SARS-CoV-2 infection during pregnancy has primarily centred on hospitalized patients, the new analysis focused on ambulatory patients, who represent the overwhelming majority of adults with the virus.

Study participants tested positive between March 22 and July 10 and had a mean age of 31 years. The average gestational age at the time of enrolment in the study was approximately 24 weeks.

The researchers found several common symptoms of Covid-19, but also that symptoms related to the virus were complicated by overlapping symptoms of normal pregnancy, including nausea, fatigue and congestion.

Their findings also showed that primary first symptoms were cough (20 per cent), sore throat (16 per cent), body ache (12 per cent), and fever (12 per cent); by comparison, fever occurs in 43 per cent of non-pregnant hospitalised patients.

According to the study, loss of taste or smell was the first symptom in six per cent of pregnant women, other symptoms included shortness of breath, runny nose, sneezing, nausea, sore throat, vomiting, diarrhoea, or dizziness.

The median time for symptoms to resolve was 37 days, the research has found.

"The majority of participants in our study population had mild disease and were not hospitalised. Even so, it took a median of 37 days for symptoms to ease," the study authors wrote.

"Our results can help pregnant people and their clinicians better understand what to expect with Covid-19 infection," they noted.

Depression

Those at depression risk listen to sad music more: Study (New Kerala: 2020109)

<https://www.newkerala.com/news/2020/178071.htm>

A study of music consumption through streaming platforms has revealed that individuals at risk of depression found listening more to music tagged with sadness.

They were also found listening to music belonging to subgenres such as neo-psychedelic pop/rock, and Indie music (Alternative pop and rock) which are tagged with 'sadness' and 'tenderness'.

The study of music data by researchers at the International Institute of Information Technology, Hyderabad (IIT-H) found that such people use repeated listening of music predominantly representing sadness as a coping mechanism.

"Each time you access or use an online resource, you unwittingly leave behind a digital footprint. Same is the case when you listen to music online. As more and more people use music streaming applications, they inadvertently reveal a lot more than mere music listening habits," says the paper.

Dr Vinoo Alluri of the Cognitive Science department at IIT-HA strongly believes that listening to music is not a passive activity but one that holds a "mirror to the self". With this credo, she and her students Aayush Surana and Yash Goyal have tried to identify music listeners with depressive tendencies from their listening histories.

Shaking up the conventional belief of music listening being a means to only alleviate one's mood, Prof. Alluri says that the inability to stop repeatedly listening to (sad) music, using it as a tool for avoidance and using music as a coping mechanism means one could wallow in an unhappy state too.

Terming it as a maladaptive use of music, she says, "This may also be a useful way of mirroring negative emotions and states, so they listen to music which matches their (negative) states. While it can be cathartic sometimes, repeatedly being in such states may be an indicator of potential underlying mental illness and this is reflected in their choice and usage of music."

In the study, titled "Tag2risk Harnessing Social Music tags for characterizing depression risk" over 500 individuals' music listening histories were elicited from the music streaming platform in addition to their responses on standard questionnaires assessing their traits and states, namely the Kessler's Psychological Distress Scale (K-10), the Healthy-Unhealthy Music Scale (HUMS), and personality questionnaires.

"We chose HUMS and the personality questionnaires because we wanted to see if the distress in individuals was a temporary state or a general tendency. There's a strong correlation between

personality traits and the Kessler's score; those who score high on neuroticism are the ones who are generally easily stressed and anxious. They also score high on the unhealthy HUMS score. So, we were testing the validity of data," explains Prof. Alluri who is the main overseeing author of the paper. Surana and Goyal who are the joint first authors of the paper, particularly looked at social tags or labels that listeners apply to songs, albums or artists.

Those at risk of depression were found predominantly listening to music tagged with emotions such as sadness. Sadness is representative of being low on energy or activity and low on valence or pleasantness. In fact other related terms such as dead, low, depressed, miserable, broken, and A lonely were also associated with sadness.

Coronavirus Pandemic (Hindustan: 2020109)

https://epaper.livehindustan.com/imageview_365996_85596602_4_1_09-10-2020_2_i_1_sf.html

कोरोना महामारी में जीवन रक्षक बनी भारतीय डाक सेवा



नई दिल्ली हिन्दुस्तान न्यूज

ई-मेल, व्हाट्सएप व सोशल मीडिया के दौर में अग्रसंगिक हो रही डाक सेवा महामारी में सबसे बड़ी जीवन रक्षक साबित हुई। लोकडाउन में जब पूरा देश घरों में पाबंद था तब डाक सेवा ने दवाइयों से लेकर मॉडर्न किट तक अस्पतालों में पहुंचाई। इस दौरान डाककर्मी घर-घर जाकर लोगों को पैसे मुहैया कराए। इससे न सिर्फ कोरोना संक्रमण रोकने में मदद मिली बल्कि हजारों लोगों को जान बचाई जा सकी।

कोरोना योद्धा बन गए: लोकडाउन हुआ तो डाककर्मी कोरोना योद्धा बन गए। टैरिफ्ट किट से लेकर वेंटिलेटर तक पहुंचाने की बात हो या फिर घर-घर लोगों को पैसे पहुंचाने की, उन्होंने लोगों की खूब मदद की। अकेले लोकडाउन के दौरान देश भर में एक हजार करोड़ रुपये से ज्यादा मनी ऑर्डर घर-घर पहुंचाया ताकि लोगों को खाहर न निकलना पड़े। नकदी को होम डिलीवरी ने कई पैशन मीनी लोगों को भारी राहत पहुंचाई। खासकर गंभीर रूप से बीमार लोगों को मदद की। इंडिया पोस्ट वैकल्पिक बैंकिंग प्रणाली के तौर पर उभरी। एक रिपोर्ट के मुताबिक, करीब 20 हजार करोड़ से ज्यादा नकदी इसके तहत लोगों तक पहुंचाई गई। इसमें किराहाहा 30 करोड़ खाते हैं और ज्यादातर पैशन मीनी को डाकघरों के जरिए



हो पैशन मिलती है।
चेहरे पर खुशी देखकर खिल उठता था मन: चाणक्यपुरी पोस्ट ऑफिस में डाक सेवकों के सहायक अघोषक अशोक कुमार कहते हैं कि हमारे पास मानव सेवा का वह सबसे बड़ा अवसर था। कई तरह की दिक्कतें थीं लेकिन हमने पूरी ताकत झोंक दी।

ये हुए लेन-देन

22 करोड़ लेन-देन देश भर में 24 मार्च से लेकर 1 सितंबर 2020 के बीच हुए	4.8 लाख करोड़ रुपये का कुल लेन-देन, इसमें इयंसेक्ट बैंकिंग ट्रांसकर पैमेंट भी शामिल	24 मार्च से 9 सितंबर के बीच डीएमए के पोस्ट पैमेंट बैंक से 8.32 करोड़ लेन-देन हुए	₹22.44 करोड़ का कुल भुगतान, डीबीटी भी शामिल
2.45 करोड़ ट्रांजेक्शन इस अवधि में लोगों के घरों में नकद भुगतान के हुए	5190 करोड़ रुपये इसके जरिए लोगों के घरों तक पहुंचाए गए	2.23 लाख स्मॉल फोन और बायोमेट्रिक डिवाइस का इस्तेमाल देश भर के डाकघरों और ग्रामीण डाकसेवकों ने बेहिसाब सेवाओं के लिए किया	

जल्द ही सामान भी पहुंचाया
● कोरोना में सामान की आपूर्ति में पोस्ट विभाग का अहम रोल रहा। जल्द ही दवाइयों और मेडिकल उपकरणों की 36,000 मीट्रिक टन की छेप भाल्य तक पहुंचाई।
● 24 मार्च से 9 सितंबर 2020 के दौरान पाँच सात करोड़ से ज्यादा 'ऑटो क्लस' स्पेड पोस्ट से बुक और डिलीवर किए गए।
उत्तर प्रदेश: 30 हजार लोगों तक दवाएं पहुंचाईं
लखनऊ में सरोजानीनगर की दुग्ध रामणी के खाते में कई माह में पैसल तो आ गई थी। लेकिन वह लोकडाउन में पैसल निकलने में असमर्थ थी। उन्होंने डाकघर से संपर्क किया। डाकघर ने उनके घर आकर आधा डीलिवरी पैमेंट सिस्टम योजना के तहत खाते से पैसा निकाल कर दिया। इसी तरह लाखों पैशन मीनी को घर-घर जाकर डाक विभाग ने उनकी पैसल पहुंचाई। डाक विभाग ने लोकडाउन के दौरान एक लाख से अधिक जरूरतमंद लोगों तक करोड़ों रुपये पहुंचाए। यही नहीं देन व परिवहन सेवाएं ठप होने के कारण विभाग ने अपने वाहन के जरिये करीब 30 हजार लोगों तक जीवन रक्षक दवाएं पहुंचाईं।
पैशन मीनी को घर-घर जाकर डाक विभाग ने उनकी पैसल पहुंचाई। डाक विभाग ने लोकडाउन के दौरान एक लाख से अधिक जरूरतमंद लोगों तक करोड़ों रुपये पहुंचाए। यही नहीं देन व परिवहन सेवाएं ठप होने के कारण विभाग ने अपने वाहन के जरिये करीब 30 हजार लोगों तक जीवन रक्षक दवाएं पहुंचाईं।

झारखंड: 14 टन मेडिकल उपकरण अस्पतालों में पहुंचाया
लोकडाउन में पारसल समय पर पहुंच जाएं, इसके लिए डाक विभाग ने रोड ट्रांसपोर्ट नेटवर्क का विस्तार किया। मुख्य रूप से हावड़ा-झारखंड-बिहार को जोड़ा गया और 14 टन मेडिकल उपकरण अस्पतालों तक पहुंचाए गए। साथ ही सिर्फ आधर का सहारा लेते हुए एक लाख बार खातों से जुड़े पैसल भेजे गए। इनमें ज्यादातर व्हाट्सएप, कोरेना किट और आयरकॉक सामान थे।
उत्तराखंड: डाक विभाग ने 85 हजार लोगों के खोले खाते
देहरादून में डाकघरों में नजरदस्त काम किया। लोकडाउन के दौरान 85 हजार पारसियों के खाते खोले, जबकि दूसरे बैंक के खाताधारकों को डाक विभाग के माध्यम से करीब यथा तीन करोड़ रुपये भी वितरित किए। देहरादून और हरिद्वार जिले से करीब 15 हजार आवश्यक सेवा से जुड़े पैसल बाहर भेजे गए। इनमें ज्यादातर व्हाट्सएप, कोरेना किट और आयरकॉक सामान थे।

बिहार: दुर्गम राहों से चलकर लोगों तक पहुंचे
डाक विभाग बिहार में जलरातमंदों के लिए मसीहा बनकर आया। लोकडाउन में जब यातायात के बंदे संभावित बंद थे तो बिहार डाक सर्विस ने पोस्टल वैन को कान्हापुरमारी से लेकर जम्मू और सीमाएं से लेकर बिहार तक चलाया। इससे दवा, मेडिकल किट, मास्क, सैनिटाइजर, पीपीई किट, काटा और वेंटिलेटर से लेकर पैशन और खाते में जमा राशि पहुंचाने का काम किया जा रहा है। डाक विभाग के चीफ पोस्ट मास्टर अनुराज कुमार ने बताया कि कोरोना कात में राइव के करीब 21 लाख 30 हजार लोगों के बीच 421 करोड़ रुपये पहुंचाए गए। डाकघरों ने पैसे पहुंचाने का काम नब, मॉडरनाइज्ड और पेटल सागर करके किया। लगभग 13 पारसल की डिलीवरी की गई। मदद करने में 625 डाकघरों संक्रमित हो गए।

Infection (Hindustan: 2020109)

https://epaper.livehindustan.com/imageview_365996_85591284_4_1_09-10-2020_2_i_1_sf.html

आफत : केरल में संक्रमण के नए प्रकोप ने डराया

नई दिल्ली | हिन्दुस्तान ब्यूरो

केरल में संक्रमण के नए प्रकोप ने नई चिंता पैदा कर दी है। करीब तीन महीने पहले यहां संक्रमण लगभग खत्म हो रहा था, पूरी दुनिया सरकार के प्रयासों की तारीफ कर रही थी लेकिन अचानक महामारी का विकराल रूप सामने आ गया। राज्य में रोजाना नए मामले बढ़ रहे हैं, गुरुवार को पहली बार दस हजार से ज्यादा मरीज मिले। राज्य सरकार ने वायरस के दूसरे स्ट्रेन का खतरा होने की आशंका जताई है और जांच के लिए सैंपल आईसीएमआर को भेजे हैं।

वायरस का अलग रूप होने की आशंका: राज्य सरकार के मुताबिक, जांच बढ़ने से मामलों में तेजी आई है लेकिन पॉजीटिविटी दर बढ़ना गंभीर खतरे का संकेत है। राज्य के मुख्य सचिव डॉ. विश्वास मेहता ने एक साक्षात्कार में वायरस के नए स्ट्रेन होने की आशंका जताई। उनके अनुसार, यह वायरस काफी तेजी से फैल रहा लेकिन जान जाने का जोखिम कम है। आईसीएमआर को सैंपल भेजा गया है और नतीजों का इंतजार है।

इसलिए खतरा ज्यादा

11 जिले बुरी तरह चपेट में, प्रति 100 टेस्ट मरीज मिलने की दर 10 फीसदी से भी ज्यादा

13.85%

फीसदी तक पहुंच गया राज्य का पॉजीटिविटी रेट, यह राष्ट्रीय औसत का लगभग दोगुना

50 हजार से ज्यादा मामले सिर्फ छह दिन में, पहले 50 हजार आने में लगे थे 203 दिन

150 नए केस दर्ज हो रहे हर दस लाख आबादी पर हर हफ्ते, राष्ट्रीय औसत से ज्यादा

पंद्रह दिन में दोगुने लोग आए संक्रमण की चपेट में

08 सितंबर	89490
15 सितंबर	110819
22 सितंबर	138632
29 सितंबर	179923
08 अक्टूबर	253406

स्रोत : स्वास्थ्य मंत्रालय

तीन महीने में 48 गुना बढ़ गए मरीज

Antibodies (Hindustan: 2020109)

https://epaper.livehindustan.com/imageview_365996_85589400_4_1_09-10-2020_2_i_1_sf.html

राहत : टीके से पहले एंटीबायोटिक उपचार संभव

नई दिल्ली | एजेंसियां

वैक्सीन बनाने में हो रही देरी के बीच राहत भरी खबर। मानव परीक्षण में अच्छे नतीजे मिलने के बाद अमेरिकी कंपनी रीजेनेरॉन और एली लिली ने सरकार से एंटीबायोटिक दवाओं के इस्तेमाल की अनुमति मांगी है। दोनों कंपनियों का दावा है कि उनके द्वारा बनाई गई एंटीबायोटिक कॉकटेल लेने के बाद अस्पताल में भर्ती मरीज जल्दी ठीक हो रहे। इसका व्यापक तौर पर इस्तेमाल करने से लाखों लोगों की जान बचाई जा सकती है। एंटीबायोटिक कॉकटेल से अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप का भी इलाज किया गया था।

दवा लेने के बाद जबरदस्त नतीजे:

एली लिली के सीईओ डेविड रिक्स ने कहा कि हमने एलवाई-कोव555 नाम से जो एंटीबायोटिक कॉकटेल तैयार किया है उसने शानदार नतीजे दिए। 268 मरीजों पर अध्ययन में पता चला कि सिर्फ एक फीसदी मरीज को ही भर्ती कराने की जरूरत पड़ी जबकि दूसरी दवा लेने वाले 5.8 फीसदी मरीजों को अस्पताल में भर्ती करना पड़ा। यह दवा लेने के 11 दिनों बाद गंभीर मरीजों में वायरल लोड कम हुआ, उन्हें बीमारी से उबरने में काफी मदद मिली। हमने अमेरिकी खाद्य और औषधि प्रशासन से

कॉकटेल दवा के नतीजे शानदार रहे हैं

रीजेनेरॉन ने एंटीबायोटिक कॉकटेल दवा बनाई है जिसके नतीजे शानदार रहे हैं। अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप को भी संक्रमण होने के बाद यह दवा दी गई थी। डॉक्टरों के मुताबिक, उन्हें इसका काफी फायदा मिला और वे जल्द ठीक हो गए।

ट्रंप ने फिर जताया भरोसा

अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप ने एक बार फिर रीजेनेरॉन कंपनी द्वारा विकसित एंटीबायोटिक कॉकटेल पर

भरोसा जताया है।

उन्होंने बुधवार को एक वीडियो संदेश में कहा कि सभी कोरोना मरीजों को यह दवा दी जानी चाहिए।



आग्रह किया है कि आपातकालीन स्थितियों में इस दवा के इस्तेमाल की इजाजत दी जाए। उनका दावा है कि कंपनी इस साल के अंत तक 10 लाख खुराक तैयार कर देगी।

COVID-19 (Hindustan: 2020109)

https://epaper.livehindustan.com/imageview_365998_85580348_4_1_09-10-2020_4_i_1_sf.html

कोविड-19 से मौत का आंकड़ा बढ़ता जा रहा

दिल्ली में कोरोना से हो रही मृत्यु दर बढ़ रही है। 27 सितंबर से 6 अक्टूबर के दस दिन के आंकड़े इसकी तस्दीक करते हैं। दिल्ली स्वास्थ्य विभाग बुलेटिन के अनुसार मृत्यु दर 27 सितंबर को 1% से कम थी, वहीं 6 अक्टूबर को 1.42% तक पहुंच गई। हालांकि 7, 8 अक्टूबर को थोड़ी कमी आई है पर यह कितना स्थायी है आगे पता चल सकेगा।



1850 से ज्यादा मरीज गंभीर हालत में

दिल्ली कोरोना एप के अनुसार अलग-अलग अस्पतालों में 1862 मरीज गंभीर हालत में कोरोना के इलाज के लिए भर्ती हैं। वेंटिलेटर वाले आईसीयू बेड पर 790 मरीजों का इलाज जारी जारी है, जबकि 1072 बिना वेंटिलेटर वाले आईसीयू बेड पर भर्ती हैं। इसमें से 270 गंभीर मरीजों का इलाज दिल्ली के सबसे बड़े कोविड अस्पताल एलएनजेपी में चल रहा है।

रोजाना 30 से अधिक मौत

अगर पिछले दस दिन के आंकड़ों पर नजर डालें तो दिल्ली में रोजाना 30 से अधिक मौत का सिलसिला जारी है। 29 सितंबर को मौत का यह आंकड़ा 48 तक पहुंच गया, जबकि इस बीच सबसे कम 32 मौत पांच अक्टूबर को देखने को मिली है।

दस दिनों के आंकड़े के आधार पर बढ़ती गई मृत्यु दर

