



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Tuesday 2020922

Bacterial disease

CIBA develops new product to curb bacterial disease (The Tribune: 2020922)

<https://www.tribuneindia.com/news/health/ciba-develops-new-product-to-curb-bacterial-disease-144530>

CIBA develops new product to curb bacterial disease
Photo for representational purpose only.

The ICAR-Central Institute of Brackishwater Aquaculture (CIBA) on Monday said it had developed a 'bacteriophage-based' product that is effective in bio-control of bacterial diseases in shrimp hatchery settings, killing only specific disease-causing bacteria.

The specific bacteriophages, which are viruses, would help produce quality shrimp seeds, free from antibiotics, the CIBA, established by the Indian Council of Agricultural Research, said in a release here.

"The 'phage prophylaxis and therapy' developed by the research institute is based on bacteriophages which are viruses that kill only specific disease-causing bacteria and act as therapeutic agents in controlling bacterial infections," it said quoting scientists.

Unlike in the case of antibiotics, bacteriophage therapy has no residual issues and has advantages of being specific to their host bacteria without harming other micro-organisms, it said.

According to Dr SV Alavandi, Principal Scientist and Head of Aquatic Animal Health and Environment Division of CIBA which developed the technology, bacterial diseases like vibriosis in aquaculture hatcheries often cause considerable economic loss to hatchery operators across the globe.

"CIBA's new product will be of great use in preventing and controlling such diseases in aquaculture especially in shrimp hatcheries," he said.

CIBA Director KK Vijayan said the product comprises of a "cocktail of phages" which could neutralise a wide range of pathogenic bacteria-causing diseases and was helpful in replacing the use of antibiotics which, according to him, pose the concern of residues and antimicrobial resistance.

In order to popularise the product through large-scale commercial production and marketing, the CIBA signed an MoU with Salem Microbes Private Limited in Salem to transfer the technology to the company, said the release. PTI

Spider venom

Spider venom may work as painkiller for irritable bowel syndrome (The Tribune: 2020922)

<https://www.tribuneindia.com/news/health/spider-venom-may-work-as-painkiller-for-irritable-bowel-syndrome-144524>

Spider venom may work as painkiller for irritable bowel syndrome
Photo for representational purpose only.

The venom from one of the largest spiders in the world may bring the hope to ease the gut pain suffered by millions of people with the irritable bowel syndrome (IBS), Australian researchers revealed on Monday.

IBS is an intestinal disorder causing pain in the stomach which affects the internal organs. The causes of IBS remain unknown.

The lead researcher, Professor Richard Lewis from the University of Queensland's Institute for Molecular Bioscience said current treatment targeting gut pain had some drawbacks.

"All pains are complex but gut pain is particularly challenging to treat and affects around 20 percent of the world's population," said Lewis.

"Current drugs are failing to produce effective pain relief in many patients before side effects limit the dose that can be administered."

There were hundreds of mini proteins known as peptides contained in spider's venom which has the capability of blocking the pain. However, not all of them were able to specifically block the chronic visceral pain caused by IBS, according to Lewis.

"Our goal was to find more specialised pain blockers that are potent and target pain sodium channels for chronic visceral pain, but not those that are active in the heart and other channels," he said.

Researchers screened venom from 28 spiders and identified two peptides from the venom of the Venezuelan Pinkfoot Goliath tarantula – which has a leg-span of up to 30 centimeters – were most promising, with one nearly stopping chronic visceral pain in a model of IBS.

"The highly selective ones have potential as treatments for pain, while others are useful as new research tools to allow us to understand the underlying drivers of pain in different diseases," said Lewis.

Rheumatoid arthritis

Rheumatoid arthritis linked to 23 per cent higher diabetes risk (The Tribune: 2020922)

<https://www.tribuneindia.com/news/health/rheumatoid-arthritis-linked-to-23-per-cent-higher-diabetes-risk-144503>

Inflammation emerges as key factor in the onset and progression of Type-2 diabetes

Rheumatoid arthritis linked to 23 per cent higher diabetes risk
Photo for representational purpose only

People suffering from rheumatoid arthritis may be at 23 per cent increased risk of developing Type-2 diabetes, says a new study.

The study, presented at the European Association for the Study of Diabetes (EASD), being held online this year from September 21-25, may indicate that both diseases—rheumatoid arthritis and diabetes—are linked to the body's inflammatory response.

“This finding supports the notion that inflammatory pathways are involved in the pathogenesis of diabetes,” said the authors of the study conducted by Zixing Tian and Adrian Heald of University of Manchester in Britain and their colleagues.

“Agents that reduce systemic inflammatory marker levels may have a role in preventing type 2 diabetes. This may involve focussing on more than one pathway at a time,” the researchers said.

Inflammation has emerged as a key factor in the onset and progression of Type-2 diabetes, and rheumatoid arthritis is an autoimmune and inflammatory disease.

The team suggests that the systemic inflammation associated with rheumatoid arthritis might therefore contribute to the risk of an individual developing diabetes in the future.

The researchers conducted a comprehensive search of a range of medical and scientific databases up to March 10, for cohort studies comparing the incidence of diabetes among people with rheumatoid arthritis to the diabetes risk within the general population.

Statistical analyses were performed to calculate the relative risks. The eligible studies identified comprised a total of 1,629,854 participants.

The authors found that having rheumatoid arthritis was associated with a 23 per cent higher chance of developing Type-2 diabetes, compared to the diabetes risk within the general population.

“We suggest that more intensive screening and management of diabetes risk factors should be considered in people with rheumatoid arthritis,” the researcher said. — IANS

Coronavirus infections

Drug used to treat coronavirus infections in cats may be effective against COVID-19(The Tribune: 2020922)

<https://www.tribuneindia.com/news/health/drug-used-to-treat-coronavirus-infections-in-cats-may-be-effective-against-covid-19-144520>

Researchers say clinical trials will need to run their course before anyone can be sure that the drug is both safe and effective

Drug used to treat coronavirus infections in cats may be effective against COVID-19
A man waits to get tested for the coronavirus disease in Prague, Czech Republic, on September 21, 2020. Reuters

A drug used to treat deadly coronavirus infections in cats could potentially be an effective treatment against SARS-CoV-2, the virus behind the global coronavirus pandemic, according to a study.

The finding, published in the journal Nature Communications, paves the way for human clinical trials of the drug, a protease inhibitor called GC376.

“This drug is very likely to work in humans, so we are encouraged that it will be an effective treatment for COVID-19 patients,” said Joanne Lemieux, a professor at the University of Alberta in Canada.

However, the researchers said clinical trials will need to run their course before anyone can be sure that the drug is both safe and effective for treating COVID-19 in humans.

In cats at least, GC376 works by interfering with a virus’ ability to replicate, thus ending an infection, they said.

Derivatives of this drug were first studied following the 2003 outbreak of severe acute respiratory syndrome (SARS), and it was further developed by veterinary researchers who showed it cures fatal feline affliction.

Lemieux and colleagues first tested two variants of the feline drug against SARS-CoV-2 protein in test tubes and with the live virus in human cell lines.

They then crystallised the drug variants in conjunction with virus proteins.

The researchers determined the orientation of the cat drug as it bound to an active site on a SARS-CoV-2 protein, revealing how it inhibits viral replication.

“This will allow us to develop even more effective drugs,” Lemieux said, adding the team will continue to test modifications of the inhibitor to make it an even better fit inside the virus.

Aina Cohen, from the US Department of Energy’s SLAC National Accelerator Laboratory, said she was excited by the drug’s effectiveness.

“Until an effective vaccine can be developed and deployed, drugs like these add to our arsenal of COVID-19 treatments,” Cohen said.

“We are thrilled to learn of these important results and look forward to learning the outcome of clinical trials,” she said. — PTI

Covid-19: What you need to know today (Hindustan Times: 2020922)

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

At a time when a mask has become a political statement — at least in the US — it isn’t surprising that the semantics between a droplet (a small drop of liquid, just to clarify) and an aerosol (a suspension of either solid particulate matter or liquid droplets in gas or, in this case, just air) should become a matter of great debate.

Which could explain the enthusiasm with which the US Centers for Disease Control and Prevention’s Friday update to its website on “how Covid-19 most commonly spreads” was received. And which could explain why, less than 15 hours after it was widely reported (early on Monday morning India time), the update was pulled, with CDC claiming it was a draft that was posted in error.

“Through respiratory droplets or small particles, such as those in aerosols, produced when an infected person coughs, sneezes, sings, talks, or breathes. These particles can be inhaled into the nose, mouth, airways and lungs and cause infection. This is thought to be the main way the virus spreads,” the now-rescinded update said. “There is growing evidence that droplets and airborne particles can remain suspended in the air and be breathed in by others, and travel distances beyond six feet (for example, during choir practice, in restaurants, or in fitness classes). In general, indoor environments without good ventilation increase this risk,” it added. The language was very different from that of CDC’s previous update (in June) on how Covid-19 spreads; that June update, now back on the organisation’s website, said nothing about aerosols.

Because some may miss it, let me point to the “distances beyond six feet” in the rescinded update. I’ve seen people in conference rooms remove masks citing the six feet rule, and continue to talk (loudly). Both, the update-that-wasn’t suggested, are risky. So is the 15-minute exposure threshold CDC suggested in a late July note. I know of organisations that keep meetings to under 15 minutes purely on the basis of that — the internet is a wonderful thing, but as the poet Alexander Pope put it, “a little learning is thing; drink deep, or taste not the Pierian spring.”

The CDC’s new guidelines-that-weren’t clearly pointed to the heightened risk of indoor transmission, especially in shared rooms, but also in open offices with poor air conditioning and bad ventilation. And talking (especially loudly, which is a natural reaction in conference rooms because everyone is spread out), was an additional risk. There’s thus far been an assumption that it is all right to speak without masks in socially distanced meetings (usually held in a closed room). Not so, indicated the CDC update. Going by it, even plexiglass-separated lawmakers in the current session of Indian Parliament are not safe. Most of them who speak do so without their masks, making it possible for aerosols to circulate (the plexiglass-glass is in front and on the side, not on top).

The World Health Organization has been importuned for months by scientists who have asked to change its own advice on transmission to include the warning on airborne transmission. That hasn’t happened. While it isn’t clear what made CDC change its mind, its rescinded update can still form the basis of guidelines that governments around the world can now draft — to ensure the safe reopening of public spaces and the restart of activities. There’s enough evidence (based on research) to prove the airborne transmission of the virus.

These guidelines will need to cover two aspects — the physical, and the behavioural. The first covers such things as nature of ventilation and air-conditioning, the number of people present and the distance between them, and presence or absence of barriers (such as plexiglass partitions). The second has to do with whether or not people are wearing masks, the amount of talking (or shouting or singing), the duration of the gathering or meeting, and the nature of the activity in which people are engaged (for instance, a gymnasium, where a bunch of people are exercising, and, consequently, breathing heavily, is definitely more risky than a quiet ride in the Metro).

This may sound like a lot of detailing, but with a vaccine unlikely to be available till the middle of 2021, and life (and work) having to go on, everyone has to learn to live with the virus — and that involves rules, a lot of them, but all based on data and science, even if politics sometimes gets in the way.

Covid centres

Patients flouting home isolation rules to be shifted to Covid centres (Hindustan Times: 2020922)

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

A yoga training session underway at the Sardar Patel Covid-19 Care Centre in Chhatarpur on

The Delhi government Monday asked district commissioners (DCs) to mandatorily shift any Covid-19 patient, being treated under home isolation, to institutional quarantine if the person is found violating Covid-19 protocols, said senior health officials.

Delhi government reports show that in 20 days, the number of Covid-19 patients under home isolation has increased by 133% — from 8,119 on September 1 to 18,910 on September 20 (Sunday). Active cases in the city during the same period have increased by 102% — from 15,870 to 32,097.

The directive was issued by special secretary (health and family welfare) Udit Prakash Rai after L-G Anil Baijal, who is also the chairperson of the Delhi Disaster Management Authority, on Friday asked the government to explore an alternative strategy for Covid-19 control in the city.

“All DCs may kindly ensure that in all such cases where the home isolation criteria are not being fulfilled by the positive patients, they must be shifted to CCC/Covid Health Centre/ Covid Hospitals as per their health condition without fail starting today (Monday). There should not be any laxity shown in adherence to the protocol of home isolation,” Rai said in his directive to all 11 districts in the city.

Delhi health minister Satyendar Jain’s office said field teams have been told to “remain in frequent contact” with neighbours of Covid-19 patients under home isolation to verify if these patients or families are violating protocols.

“We are also deputing additional trained civil defence volunteers to conduct inspections. Those who do not want to isolate at home, to avoid putting their family members at risk, may opt for the Delhi government facilities for free. For a more premium experience, two private hospitals – Max Saket Hospital and Sir Ganga Ram Hospital – have paid quarantine facilities,” the government spokesperson said.

A senior health official said nearly 2,000 homes are visited daily by field teams to check on people under home isolation. “Until last week, around 10 to 20 patients were being shifted to Covid Care Centres or hospitals every day. Now, with stricter enforcement and surveillance, this number is likely to increase,” the official said.

The health department clarified that each district has been specifically asked to check and ensure that only the patient who fulfils the laid down criteria for home isolation is allowed to get treated at home.

As per the protocol laid down by the Centre, which is being followed by Delhi, a Covid-19 patient under home isolation is considered discharged after 10 days of the onset of symptoms, if the person has no fever for three consecutive days. Thereafter, the patient is advised to isolate at home and self-monitor for seven more days.

There is no need for testing after the home isolation period is over, but every discharged person must receive a fitness certificate from the district officials, state the guidelines issued by the Union health ministry on July 2.

In a special session of the Delhi Assembly on September 14, chief minister Arvind Kejriwal had informed the House that around 96,000 people have recovered from Covid-19 under home isolation and that only 30 deaths were reported from among such patients.

Coronavirus Cases (The Asian Age: 2020922)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=15118376>

30% Covid patients in city hospitals from outside: Jain

City records 2,548 new Covid cases, Death toll crosses 5,000

AGE CORRESPONDENT
NEW DELHI, SEPT. 21

Delhi health minister Satyendar Jain on Monday said 30 per cent of the Covid patients admitted to city hospitals are from other states and most of them have been occupying ICU beds at private facilities.

Delhi recorded 2,548 fresh coronavirus cases. Of the total 2,49,259 patients, 30,941 are active and 2,13,304 patients were recovered. With 32 deaths in the last 24 hours, total death counts rose to 5,014. Positivity rate stands at 7.55 per cent and fatality rate is 2.01 per cent. Total 31,751 tests conducted in the last 24 hours. 3,572 patients had recovered during the same period.

Amid a rise in the number of non-resident patients, the Delhi government has decided to collect data of their deaths separately, he said, adding that the national capital has the lowest death rate in the country. Based on data of the last 10 days, the death rate in Delhi stands at 0.77 per cent.

"Around 30 per cent Covid patients admitted to Delhi hospitals are from outside the city," he told reporters.

"People coming in from outside prefer private hospitals. They make up their mind in advance and directly go to these four-five hospitals they have heard of... Such as Max, Apollo and Fortis. That's why ICU beds are full there," he said.

"Most of them have occupied ICU beds in private hospitals. There are 1,500 such patients admitted to Delhi hospitals," he said. The minister, however, said there are around 1,000 ICU beds available in Delhi at present. Around 1,500 non-ICU beds and more than 500 ICU beds have been added over the last few days, he said.

"The number of vacant



Covid patients perform Yoga asanas at Sardar Patel Covid Care Centre and Hospital, in New Delhi on Monday. — PFI

beds is available on Delhi Corona app... Nothing is being concealed," he said.

Mr Jain said data related to deaths of non-resident patients is being collected separately. Earlier, it was not so.

The minister also said there is no shortage of plasma. Those in need can get it from the Institute of Liver and Biliary Sciences. Asked about allegations of irregularities in testing by laboratories in other states, he said there were no such complaints in Delhi.

"I cannot comment on what is happening in other states," Delhi's cumulative Covid-19 case count rose to 2,46,711 with 3,812 more people contracting the viral disease, while 37 fresh fatalities pushed the death toll to 4,982.

As many as 52,405 tests were conducted to detect Covid infection on Saturday, of which 11,322 were RT-PCR/TrueN at tests and 41,083 were rapid antigen tests.

77 new cases push Noida tally to 11,419

THE NUMBER of active cases came down to 1,578 from 1,678 on Sunday, according to the data released by the state health department for a 24-hour period

Noida, Sept. 21: Seventy-seven new instances of Covid infection pushed the tally of cases in Uttar Pradesh's Gautam Buddha Nagar district to 11,419 on Monday, official data showed.

The number of active cases came down to 1,578 from 1,678 on Sunday, according to the data released by the state health department for a 24-hour period.

On the brighter side, 177 patients got discharged during the period and the total number of recoveries in the district reached 9,792, the data showed.

The district, adjoining Delhi, has so far recorded 49 coronavirus-linked deaths and has a mortality rate of 0.42 per cent which is one of the lowest in the state.

Meanwhile, the recovery rate of patients reached 85.75 per cent from 84.77

No social, cultural & political gathering in Delhi till Sept. 30

New Delhi, Sept. 21: The DDMA on Monday clarified that all social, cultural and political functions along with large gatherings and congregations in Delhi are prohibited till September 30.

In view of several protests against farm bills in the city, the Delhi Police also said demonstrations cannot be allowed till September 30, citing an earlier order of DDMA which prohibits such activities.

In a communication to Delhi government's Deputy home secretary, DDMA additional CEO Rajesh Goyal on Monday said the order of the Authority, dated June 6, will continue till September 30.

As per the DDMA order on June 6, all social, academic, sports, entertainment, cultural, religious, political functions as well other gatherings and congregations were prohibited throughout NCT of Delhi. Also, the order restricted marriage related gatherings to 50 persons and funeral and last rites gatherings to 20 persons.

"The said position has been continued till September 30, vide DDMA

March, officials said on Monday.

Around 50 Covid children are currently admitted to a special ward designed for them at the hospital.

"Around 415 children have successfully recovered from coronavirus. Around 10 per cent of them were severe cases," Dr Urmila Jhamb said.

Children suffering from other diseases such as tuberculosis, cancer and kidney issues become severely ill if they contract the coronavirus, she said, adding most children show mild symptoms such as diarrhea and vomiting.

Mothers are allowed to stay with their Covid-positive children even if they themselves are coronavirus-free, but they can engage with their child only Dr Jhamb said.

The hospital recently created a special Covid ward for children, a first-of-its-kind facility in the national capital.

"Non-profit 'Doctors for You' helped us create a separate ward for children because they need some recreational activity. Children can watch cartoons on TVs installed in the ward and play with toys," she said.

IN VIEW of several protests against farm bills in the city, the Delhi Police also said demonstrations cannot be allowed till September 30, citing an earlier order of DDMA which prohibits such activities

order dated September 3, 2020," Goyal stated. "It is therefore quite clear that at present, all social, academic, sports, entertainment, cultural, religious, political functions, other gatherings and congregations are prohibited throughout NCT of Delhi," he said.

The Delhi Police also said in a tweet that all political, cultural and social gatherings in NCT of Delhi will remain suspended till September 30.

On Monday, the police also detained over 40 Delhi Congress workers, including state president Anil Kumar, who were marching towards Parliament to protest the farm bills.

Meanwhile, more than 400 children have recovered from coronavirus at the Lok Nayak Jai Prakash Narayan Hospital, the Delhi government's largest Covid facility, since

per cent on Sunday it was 80.30 per cent last Monday, according to the statistics. Gautam Buddha Nagar now ranks ninth among the 75 districts in the state in terms of active cases, seventh in recoveries and 31st in death toll, according to the official figures.

There were 64,164 active cases across Uttar Pradesh on Monday. So far, 2,89,594 patients have recovered across the state, while the death toll linked to coronavirus climbed to 5,135, the data showed.

The state's average recovery rate stood at 80.69 per cent, according to government officials.

CDC's acknowledgement of COVID-19 spread through aerosols

In the air: On CDC's acknowledgement of COVID-19 spread through aerosols (The Hindu: 2020922)

<https://www.thehindu.com/opinion/editorial/in-the-air/article32663532.ece>

With more evidence of aerosol transmission, physical distancing and masking are crucial. The Centers for Disease Control and Prevention (CDC) is revising its guidelines to acknowledge the spread of the novel coronavirus through aerosols, and to point to inhalation of particles as a common way the virus spreads. A draft of the proposed changes to its recommendations, which was later withdrawn pending finalisation, confirmed that airborne particles can spread even by breathing, remain suspended in air and be inhaled and spread beyond six feet in certain enclosed settings. This comes after a body of evidence provided sufficient indication of aerosol (less than 5 microns) transmission, especially in closed settings with poor ventilation and after prolonged contact with an infected person. In February, researchers from the Wuhan Institute of Virology, in a paper published in Nature, first proposed airborne transmission. The paper also identified and characterised the novel coronavirus and confirmed the receptor to which the virus binds. The World Health Organization had, on July 9, acknowledged that the virus can be airborne in closed settings after an open letter by more than 200 scientists appealing to the medical community and national and international bodies to “recognize the potential for airborne spread of COVID-19”.

Also read: CDC says revised guidance on coronavirus spread posted in error, removes it

Beginning with the cruise ship, Diamond Princess, large outbreaks have been documented in churches in South Korea and Singapore, prisons, old-age homes, ski resorts in Austria and even choir practice in a church in Mount Vernon, Washington, providing strong evidence of aerosol transmission in certain closed settings early during the pandemic. It is therefore bewildering that both WHO and the CDC refused to adopt the precautionary principle and caution people even while collecting data to confirm or refute that possibility. However, even in the absence of guidelines from the global bodies, many countries had on their own denied permission for certain enclosed settings to operate, thus averting innumerable outbreaks and cases. With aerosol transmission now being confirmed and its spread to distances beyond six feet also known, the only way to prevent infection till such time and probably even when vaccines become available is through universal masking. Timely cautioning by global bodies of an aerosol transmission possibility might have encouraged universal mask wearing early on, thus preventing thousands of cases. Universal masking can avert infections, and if infected, the amount of viral load one is exposed to will be less, thus leading to only asymptomatic infections or mild disease. Unlike Diamond Princess, universal masking in another ship led to 81% of infections being asymptomatic. There have been similar results in other cases where universal masking was practised. With aerosol transmission now being established as a common way of

spread in certain settings, the best way to avoid getting infected is by staying clear of crowded, closed settings that have poor ventilation.

Russia's Sputnik V vaccine

Need for caution: On Russia's Sputnik V vaccine (The Hindu: 2020922)

<https://www.thehindu.com/opinion/editorial/need-for-caution-the-hindu-editorial-on-russias-sputnik-v-vaccine/article32633644.ece>

India needs more than one vaccine, but all must come through their long gestation. Russia's candidate vaccine for COVID-19 appears to have found a midwife in India. The Russian Direct Investment Fund (RDIF), which is piloting the Sputnik V vaccine, has announced a partnership with the Hyderabad-based Dr. Reddy's Laboratories to conduct a Phase-3 trial, or large multi-location human trials here. Were the candidate vaccine, developed by Russia's Gamaleya, to prove safe and efficacious, the RDIF would supply 100 million doses through its partnership with Dr. Reddy's Laboratories. However, there is no agreement to manufacture the vaccine here unlike the deal between the Pune-based Serum Institute of India and the United Kingdom-based AstraZeneca, for the Oxford University-developed ChAdOx1 vaccine. Sputnik V is being developed as a two-dose vaccine on a human adenovirus vaccine platform. Several vaccines that are in development are also being deployed on similar platforms, and the evidence so far is that none of these has been commercially approved for use in humans though there is an experimental vaccine for Ebola. Results of the Phase-1 and Phase-2 trials of the vaccine, published in *The Lancet*, suggest that the evidence so far is that it has proven safe and efficacious enough to progress to the next stage of trials. Controversially, Sputnik V has been granted a pre-approval by Russia's regulators even before Phase-3 trials have been completed.

There is immense political pressure globally on regulatory agencies to get a vaccine out at the earliest. Thus, it is incumbent on a company conducting such trials to be particularly vigilant that all good practices and necessary protocols are scrupulously followed. It is well acknowledged that two-thirds of the most common vaccines produced globally are made in India. The Serum Institute has committed to producing 100 million doses of its vaccine for India and other 'Low and Middle Income Countries' at less than \$3 per dose. Reportedly, half of these are for India. All in all, there seems to be a guarantee for only about 150 million doses for India, which given the country's population is minuscule. All of this of course does not account for the vaccines that are being indigenously developed in India: Covaxin, by Bharat Biotech, based on a strain sourced from the Indian Council of Medical Research, and ZyCoV-D, the plasmid DNA-vaccine being developed by Zydus Cadilla. In Phase-2 trials now, both are being tested for their ability to produce a satisfactory immune response. India has the capabilities for vaccine manufacture, cold chain storage and distribution to ensure access to citizens — and the world — in reasonable time, but it must not forget that vaccines must go through their inevitably long gestation to ensure that only those that are safe and efficacious make their way to the market.

Vaccine for all: On COVID-19 vaccine policy

Vaccine for all: On COVID-19 vaccine policy (The Hindu: 2020922)

India needs a COVID-19 vaccine policy that ensures total coverage in logical phases. The race to a vaccine is a relay — at every stage, there are people passing on the baton, and it's the government's responsibility to grasp it at the last mile. Whether or not a vaccine for COVID-19 is around the corner, it is imperative that a vaccine policy is formulated for India, ensuring parity of access for all. As several vaccine efforts are progressing at varying paces, globally, concerns about access to a vaccine in the future have crept into the narrative. WHO Director General Tedros Adhanom Ghebreyesus recently spoke of the need to use a vaccine, when it becomes available, effectively. He also indicated the need to prioritise vaccination for some in the initial stages, while in time, as production increases, people everywhere should get it. In the initial stages, global health leaders have been advancing the vaccine for essential workers and those at risk including senior citizens and those with co-morbidities. As Dr. Tedros said, "some people in all countries, rather than all people in some countries", should have access to the vaccine in the early phase. Even in this initial stage, the government should make the vaccine available free of cost to those who cannot pay, or at affordable rates. As production kicks off, initial production costs are likely to be high, even astronomical, and it is the duty of governments to cushion the cost. Once the economies of scale begin to kick in, it is likely that the prices are driven down and become more affordable. Besides being a moral and ethical imperative, it will also make economic sense to make sure the vaccine is eventually available to all. Leaving gaps in the delivery of the vaccine will only serve to allow the virus to survive, and continue to wreak further damage.

Sleeping

Did you know that your sleep posture can determine the health of your skin?(The Indian Express:2020922)

<https://indianexpress.com/article/lifestyle/life-style/did-you-know-that-your-sleep-posture-can-determine-the-health-of-your-skin-6586766/>

For people who sleep on a pillow, sleeping on their back is considered to be a better sleeping position than sleeping sideways, or on the stomach

sleeping posture, health of the skin, skin habits, sleeping habits, early wrinkles on the face, skincare, indian express, indian express news From premature wrinkles to pimple breakout, find out how your sleeping position plays a determining factor. (Source: Pixabay)

When it comes to your skin, you have to be mindful of a lot many things, especially if you notice a sudden acne breakout or dullness. Not many people are aware, but how you sleep at night, your posture, etc., makes a lot of difference when it comes to your skin. From premature wrinkles to pimple breakout, find out how your sleeping position plays a determining factor.

Brand Wagon Conclave

* For people who sleep on a pillow, sleeping on their back is considered to be a better sleeping position than sleeping sideways, or on the stomach. This is so because when you do the latter, your face is pushed deeper into the pillow, and if the pillow case/pillow cover has not been washed for a while, it may contain some dirt and bacteria which can cause mayhem on your face. You can prevent this from happening by either changing your preferred sleeping posture, or by washing the pillow case on a regular basis.

ALSO READ | DIY skincare: A homemade body lotion to take care of your many problems

* As mentioned earlier, some people enjoy sleeping on the stomach. This must be avoided if you do not want your face to get clogged. It is known that at night, the skin cells get repaired and as such, the skin needs to breathe. This position forces the face against the pillow, and staying that way for a good seven or eight hours is a big no-no. It can also lead to wrinkles and lines.

* Sleeping on the back is believed to be the ideal position. It does not apply any kind of pressure on the face, the skin gets to breathe and repair itself, and since there is no external pressure, there are no possibilities for fine lines or wrinkles on the face. In fact, in the long run, it can make your face smoother. Additionally, it makes sure there is no face contact with the pillow case — clean or unclean — and hence, no zits either.

ALSO READ | Shruti Haasan shares tips to clean makeup brushes, sponges

While it may seem like a difficult habit to break — and one that cannot be done overnight — it is not impossible, and must be done for the sake of your skin.

For more lifestyle news, follow us: Twitter: [lifestyle_ie](#) | Facebook: [IE Lifestyle](#) | Instagram: [ie_lifestyle](#)

 The Indian Express is now on Telegram. Click here to join our channel (@indianexpress) and stay updated with the latest headlines

Breast cancer drug

Breast cancer drug shows promise to change prostate cancer treatment (New Kerala: 2020922)

<https://www.newkerala.com/news/2020/167852.htm>

A drug used to treat breast and ovarian cancer can extend the lives of some men with prostate cancer, showed results of a major trial which could change clinical practice.

Final results from the trial showed that olaparib -- a pioneering type of drug called a PARP inhibitor, a cancer drug to target an inherited genetic fault -- can be used successfully to treat prostate cancers with a weakness in their ability to repair damaged DNA.

The drug was more effective than the modern hormone treatments abiraterone and enzalutamide at slowing down the growth and spread of prostate cancer in patients with advanced disease, the results showed.

The trial had already reported an improvement in disease development and outcome for this group of men with DNA repair faults in their tumours -- but the final results published at this stage offer a longer follow-up and conclusively demonstrate an improvement in survival for men who were given olaparib.

The trial studied 387 men with advanced prostate cancer who had defects in one or more of 15 DNA repair genes.

Scientists at The Institute of Cancer Research (ICR), London, were the first to discover how olaparib could be targeted at tumours with faults in their ability to repair DNA.

They now expect the concluding results from the trial -- presented at the European Society for Medical Oncology on Sunday and published in the journal *The New England Journal of Medicine* at the same time -- to pave the way for regulatory approval of olaparib in prostate cancer in Europe and in the UK.

"I'm confident that our results will transform prostate cancer treatment - hopefully very soon," said study co-leader Johann de Bono, Professor of Experimental Cancer Medicine at The Institute of Cancer Research, London.

"We have shown that olaparib, a drug already approved for use in breast and ovarian cancer, can extend the lives of men with advanced prostate who have defects in the genes BRCA1, BRCA2 or ATM and who have been treated with enzalutamide or abiraterone," said de Bono who is also Consultant Medical Oncologist at The Royal Marsden NHS Foundation Trust.

"The FDA (Food and Drug Administration) has already approved olaparib for prostate cancer in the US and I hope that the final results of our trial will bring the authorisation of this innovative drug to Europe and the UK as soon as possible," he said.

Men whose tumours had genetic changes were assigned to two groups one group for those with changes in BRCA1, BRCA2 or ATM, and another group for men with genetic changes in any other of the DNA repair genes studied.

Men were then randomly assigned to olaparib or standard hormone therapy.

DNA damage is the basic cause of cancer -- but it is also a key weakness of cancer that can be exploited, since cancer cells need to be able to repair their own DNA too.

In the final analysis of data from the "PROfound" trial, researchers found that olaparib blocked prostate cancer growth more effectively than the modern targeted hormone treatments abiraterone and enzalutamide in men with faulty DNA repair genes.

Patients with genetic alterations in the DNA repair genes BRCA1, BRCA2 or ATM who received olaparib had a median overall survival of 19.1 months, compared with 14.7 months for those on targeted hormone treatments, showed the results.

World Alzheimer's Day

World Alzheimer's Day: Avoiding drugs, healthy lifestyle key to combat disease (New Kerala: 2020922)

<https://www.newkerala.com/news/2020/167828.htm>

World Alzheimer's Day is observed every year on September 21. The Alzheimer's disease is seen in people especially after 65 years of age where they are unable to remember things or tasks. Taking necessary precautions while maintaining a healthy lifestyle and keeping away from drugs can keep mental disorders such as Alzheimer's and dementia at bay.

With aging, all kinds of diseases start targeting our body. One of the major disease is Alzheimer's/dementia in elderly people where they tend to forget basic tasks. The number of such people is increasing by the day. That is why World Alzheimer's Day or Dementia Day is celebrated every year on September 21 to prevent this disease from spreading to people. It is aimed at bringing awareness so that the elderly can be saved from this disease.

Dr Adarsh Tripathi, Additional Professor, Department of Psychiatry, King George Medical University, says in order to protect the elderly from dementia, it is necessary that all family members maintain affinity towards them. Do not let them feel lonely, take time out to talk to them, do not ignore their concerns but listen to them carefully. These are the steps to help the elderly people suffering from dementia or Alzheimer's.

However, several steps such as keeping their mind occupied with other tasks, taking care of their favourite things, sleep-wake time, breakfast and food arrangements at the scheduled time can help prevent Alzheimer's or dementia to a great extent.

This disease occurs due to brain tissue damage during old age. The risk of the disease increases due to disturbances in the protein structure of the brain. It is a brain-related disease in which a person gradually starts losing memory. A person is unable to remember even the smallest of things. When this disease aggravates, the person does not even remember the faces of people. No exact cure for this disease has been found till now.

The doctor said that to get control over amnesia, it was necessary to keep yourself physically and mentally healthy. Do not let negative thoughts take a toll on the mind and keep the mind happy with positive thoughts. If you are interested in activities like listening to music of your choice, singing songs, cooking, gardening, sports, etc then engage in it with full dedication.

An advisory released recently by the Ministry of Social Justice and Empowerment and the All India Institute of Medical Sciences (AIIMS), New Delhi, says as per the 2011 census, there were nearly 16 crore elderly people aged above 60 years in the country. Of these, nearly 8.8 crore were between 60 and 69 years, 6.4 crore were between 70 and 79 years, 2.8 crore aged 80 years who were dependent on others and 18 lakh elderly people who were either homeless or have no one to take care of them.

Immunological diseases

Researchers link hormones to lifetime risk for immunological diseases (New Kerala: 2020922)

<https://www.newkerala.com/news/2020/167410.htm>

Researchers from Michigan State University found that the differences in biological sex can dictate lifelong disease patterns. The new study links connections between specific hormones present before and after birth with immune response and lifelong immunological disease development.

Published in the most recent edition of the Proceedings of the National Academy of Sciences, the study answers questions about why females are at increased risk for common diseases that involve or target the immune system like asthma, allergies, migraines and irritable bowel syndrome (IBS).

The findings by Adam Moeser, Emily Mackey and Cynthia Jordan also open the door for new therapies and preventatives.

"This research shows that it's our perinatal hormones, not our adult sex hormones, that have a greater influence on our risk of developing mast cell-associated disorders throughout the lifespan," said Moeser, Matilda R. Wilson Endowed Chair, a professor in the Department of Large Animal Clinical Sciences and the study's principle investigator. "A better understanding of how perinatal sex hormones shape lifelong mast cell activity could lead to sex-specific preventatives and therapies for mast cell-associated diseases," added Moeser.

Mast cells are white blood cells that play beneficial roles in the body. They orchestrate the first line of defence against infections and toxin exposure and play an important role in wound healing, according to the study, 'Perinatal Androgens Organize Sex Differences in Mast Cells and Attenuate Anaphylaxis Severity into Adulthood.'

However, when mast cells become overreactive, they can initiate chronic inflammatory diseases and in certain cases, death. Moeser's prior research linked psychological stress to a specific mast cell receptor and overreactive immune responses.

Moeser also previously discovered sex differences in mast cells. Female mast cells store and release more inflammatory substances like proteases, histamine and serotonin, compared with males.

Thus, female mast cells are more likely than male mast cells to kick-start aggressive immune responses. While this may offer females the upper hand in surviving infections, it also can put females at higher risk for inflammatory and autoimmune diseases.

"IBS is an example of this. While approximately 25 per cent of the US population is affected by IBS, women are up to four times more likely to develop this disease than men," said Mackey, whose doctoral research is part of this new publication.

Moeser, Mackey and Jordan's latest research explains why these sex-biased disease patterns are observed in both adults and prepubertal children. They found that lower levels of serum histamine and less-severe anaphylactic responses occur in males because of their naturally higher levels of perinatal androgens, which are specific sex hormones present shortly before and after birth.

"Mast cells are created from stem cells in our bone marrow. High levels of perinatal androgens program the mast cell stem cells to house and release lower levels of inflammatory substances, resulting in a significantly reduced severity of anaphylactic responses in male newborns and adults," Moeser said.

"We then confirmed that the androgens played a role by studying males who lack functional androgen receptors," said Jordan, professor of Neuroscience and an expert in the biology of sex differences. While high perinatal androgen levels are specific to males, the researchers found that while in utero, females exposed to male levels of perinatal androgens develop mast cells that behave more like those of males. "For these females, exposure to the perinatal androgens reduced their histamine levels and they also exhibited less-severe anaphylactic responses as adults," said Mackey, who is currently a veterinary medical student at North Carolina State University.

In addition to paving the way for improved and potentially novel therapies for sex-biased immunological and other diseases, future research-based will help researchers understand how physiological and environmental factors that occur early in life can shape lifetime disease risk, particularly mast cell-mediated disease patterns.

"While biological sex and adult sex hormones are known to have a major influence on immunological diseases between the sexes, we're learning that the hormones that we are exposed to in utero may play a larger role in determining sex differences in mast cell-associated disease risk, both as adults and as children," Moeser said.

COVID-19 live updates

COVID-19 live updates: Total number of cases passes 31 million (Medical News Today: 2020922)

<https://www.medicalnewstoday.com/articles/live-updates-coronavirus-covid-19#7>

SARS-CoV-2 infection causes a respiratory illness called COVID-19.

COVID-19 has now been reported on every continent except Antarctica.

Keep up to date with the latest research and information about COVID-19 here.

09/21/2020 11:15 GMT — COVID-19: How many patients return to the hospital after discharge?

Many people who arrive at the emergency room with mild COVID-19 symptoms are discharged upon initial presentation. A recent study investigates how many of these individuals are later admitted to the hospital. The authors found that doctors admitted almost 5% of these people within 72 hours.

In all, 66 patients (4.7%) returned to the emergency room and were admitted to the hospital within 72 hours because of worsening symptoms. An additional 56 patients (3.9%) also returned to the emergency room but were again discharged.

The research, which appears in the journal *Academic Emergency Medicine*, also identifies certain factors associated with an increased risk of readmission. These factors include age, obesity, hypertension, and hypoxia.

Read more about the research [here](#).

09/21/2020 10:47 GMT — US cases of depression have tripled during the COVID-19 pandemic

A recent study, which features in the journal *JAMA Network Open*, finds that the number of adults in the United States who are experiencing depression has tripled during the pandemic. The number of affected individuals has risen from 8.5% before the pandemic to 27.8%.

Among other findings, the researchers determined that people with less than \$5,000 in savings were 50% more likely to experience symptoms of depression than those who had more.

Discussing ways to alleviate this, lead author Catherine Ettman says:

“There may be steps that policymakers can take now to help reduce the impact of COVID-19 stressors on depression, such as eviction moratoria, providing universal health insurance that is not tied to employment, and helping people return to work safely — for those able to do so.”

Read MNT’s full coverage of the study [here](#).

09/18/2020 15:00 GMT — Regional WHO director: September cases spike signals ‘wake-up call’ for Europe

Dr. Hans Henri P. Kluge, the World Health Organization’s (WHO) Regional Director for Europe, held a press conference yesterday in Copenhagen, Denmark.

In it, he reminded Europeans that, “Last week, the region’s weekly tally exceeded 300,000 cases,” and “More than half of European countries have reported a greater than 10% increase in cases in the past 2 weeks.”

Dr. Kluge said these figures reflect higher testing rates, but they also indicate “alarming rates of transmission.”

The numbers should serve as a “wake-up call for all of us,” he continued. The WHO representative called for solidarity and a concerted, “amplified effort” from all European Member states.

To read or watch his entire message, visit the WHO website [here](#).

09/18/2020 12:00 GMT — COVID-19 is here to stay, new research predicts

A new study predicts that the novel coronavirus is here to stay and will have a seasonal pattern, similar to the flu, wherein transmission decreases in summer and increases again in winter. This is largely due to the effect of the climate on viral transmission, the authors say.

Judging by data on similar “enveloped” viruses, cold weather may lead to the stabilization of SARS-CoV-2. Conversely, UV light in hot summer months may kill the new coronavirus. The study looks at other considerations, too.

“Therefore, the public will need to learn to live with it and continue practicing the best prevention measures, including wearing of masks, physical distancing, hand hygiene, and avoidance of gatherings,” says senior study author Hassan Zaraket, Ph.D.

However, the authors emphasize that their predictions are merely a “best guess,” and that this predicted seasonality is heavily reliant on the development of a vaccine and the achievement of significant herd immunity.

“This remains a novel virus, and despite the fast-growing body of science about it, there are still things that are unknown. Whether our predictions hold true or not remains to be seen in the future. But we think it’s highly likely, given what we know so far, [that] COVID-19 will eventually become seasonal, like other coronaviruses,” says Zaraket.

Read our full coverage [here](#). For a comprehensive overview of the impact of weather on COVID-19, read our feature [here](#).

09/17/2020 10:00 GMT — Trump claims vaccine will be ready next month; experts disagree

Yesterday, President Donald Trump predicted that a safe, effective vaccine would be ready to use in October and rolled out across the United States soon after. His statement is in direct contradiction to comments made by the government’s top health experts.

If scientists deem one of the experimental vaccines they are currently testing as safe and effective soon, experts believe there will still be some time before it is widely available.

For instance, Dr. Robert R. Redfield, Director of the Centers for Disease Control and Prevention (CDC), believes that it may be available for frontline staff toward the end of the year or in January 2021.

Dr. Redfield also explained that should scientists develop a successful vaccine, they would probably not deploy it on a wider scale until late spring or summer.

Read more [here](#).

09/17/2020 08:57 GMT — COVID-19: Antibody fragment could prevent infection

A recent study, which appears in the journal *Nature Communications*, suggests that an antibody fragment, called a nanobody, can neutralize SARS-CoV-2. According to the authors, it is possible to produce these fragments cheaply and at scale, making it a promising candidate for the widespread prevention of COVID-19.

Senior study author Prof. Gerald McInerney says, “We hope our findings can contribute to the amelioration of the COVID-19 pandemic by encouraging further examination of this nanobody as a therapeutic candidate against this viral infection.”

Read MNT’s full coverage of the research [here](#).

09/16/2020 09:21 GMT — Links between obesity, COVID-19, and bacteria

A recent review, which appears in the journal *eLife*, examines how the microbiome interacts with COVID-19 in the lungs. The authors believe their findings help explain why people with obesity and diabetes are more likely to develop severe acute respiratory syndrome (SARS) after infection.

The authors conclude, “The appearance of bacteria, their products, or both in the lungs of [people with obesity and diabetes] promotes interactions between viral and bacterial pathogens, resulting in a more severe lung injury in COVID-19.”

Find the full study [here](#).

09/16/2020 09:14 GMT — India passes 5 million cases

According to officials, India has now registered more than 5 million cases of COVID-19 and 82,066 related deaths. In the past 24 hours alone, the Health Ministry has reported 90,123 cases and 1,290 deaths. Already in September, they have registered more than 1 million cases.

The United States still has the highest total number of COVID-19 cases with 6.6 million, but experts believe India will surpass this figure within the next few weeks.

Read more about the situation in India [here](#).

9/15/2020 09:58 GMT — Chinese vaccine ready by November?

According to Chinese officials, a COVID-19 vaccine could be ready for the public in November. Scientists are currently testing four candidate vaccines in late-stage clinical trials, and three of these have already been offered to frontline staff.

According to Guizhen Wu, the chief biosafety expert at China’s Centers for Disease Control and Prevention (CDC), phase 3 clinical trials are going well.

Read more [here](#).

09/15/2020 09:06 GMT — US COVID-19 cases down 15% in past week

Comparing the past 7 days with the 7 days before, cases of COVID-19 in the United States have dropped 15%. New cases have now dropped for 8 consecutive weeks. The number of coronavirus-related deaths has also fallen for 4 weeks in a row.

However, the number of cases in some states — including North Dakota, Wisconsin, Delaware, New Hampshire, and New Jersey — has risen for 2 weeks in a row.

Last week, on average, the U.S. tested 650,000 people each day. Of these individuals, 5.4% tested positive. This figure has dropped steadily over the past 6 weeks.

[Read more here.](#)

09/14/2020 09:37 GMT — Asthma may not increase the risk of severe COVID-19

A recent review finds that the proportion of all patients hospitalized with COVID-19 who also have asthma is similar to the prevalence of asthma in the wider population. The authors conclude that asthma is not a “significant risk factor for developing severe COVID-19 requiring hospitalization.”

The researchers also found that patients hospitalized with COVID-19 who had asthma were no more likely to be intubated than other patients without asthma.

“The CDC [place] people with asthma at higher risk [of] COVID-related hospitalization,” explains senior author Dr. Fernando Holguin. “However, many international studies show low numbers of [people with asthma] among hospitalized COVID-19 patients. These findings challenge the assumption about asthma as a risk factor.”

[Read MNT’s coverage of the study here.](#)

09/11/2020 11:56 GMT — No evidence of ‘cytokine storm’ in COVID-19

Contrary to current theories, a recent study concludes that COVID-19 is not associated with a cytokine storm. The findings could have implications for treatment, suggesting that anti-cytokine therapies may not be beneficial. The new study appears in JAMA Network.

[Read our coverage of the study here.](#)

09/11/2020 09:15 GMT — Latin America registers 8 million cases

Globally, Latin America now has the highest number of COVID-19 cases, with more than 8 million infections. Brazil remains the worst-affected country in the region, with 4.2 million infections. However, the daily average number of cases across the region is falling.

Yesterday, Brazil reported 40,557 new infections, which is a decrease from recent days. Similarly, Peru, Colombia, and Mexico also registered slightly lower average numbers of cases.

[Read more about the situation in Latin America here.](#)

09/10/2020 10:34 GMT — Critically ill patients have robust immunity to new coronavirus

A recent study suggests immune responses to SARS-CoV-2 in severely ill patients are as strong or stronger than those of patients with milder COVID-19. This adds to the evidence that the immune system itself is to blame for the most life-threatening form of the infection.

The results of the study appear in the journal *Cell Reports Medicine*. Lead author Prof. Nina Babel explains, “Even though further studies will be necessary to understand the specific mechanism of COVID-19 development, our data suggest that excessive SARS-CoV-2-specific T cell response can cause [immune damage] leading to COVID-19-related lung failure.”

Find more about the study [here](#).

09/10/2020 09:18 GMT — Promising results for Russian vaccine

A new paper, which appears in *The Lancet*, details the results of two early phase clinical trials of the Russian Sputnik V vaccine. According to the authors, the vaccine “has a good safety profile and induced strong humoral and cellular immune responses in participants.”

However, it is worth noting that the researchers had designed the trials to assess the safety and immunogenicity of the vaccine, not to evaluate whether it can prevent COVID-19. Senior author Prof. Alexander Gintsburg explains the next steps:

“The phase 3 clinical trial of our vaccine was approved on 26 August, 2020. It is planned to include 40,000 volunteers from different age and risk groups and will be undertaken with constant monitoring of volunteers through an online application.”

COVID-19: Russian vaccine

Hope during COVID-19: Russian vaccine holds promise and other findings (Medical News Today: 2020922)

While the pandemic is still ongoing, we continue to round up the scientific studies that offer encouraging results to help us envisage an end to the current crisis.

Sputnik V shows promise in post-registration trials in Russia.

Photo credit: Natalia Kolesnikova/AFP via Getty Images

All data and statistics are based on publicly available data at the time of publication. Some information may be out of date. Visit our coronavirus hub and follow our live updates page for the most recent information on the COVID-19 outbreak.

Firstly, scientists at the Gamaleya Research Institute of Epidemiology and Microbiology, in Moscow, devised a candidate vaccine that elicits a robust immune response, with reportedly no serious side effects in humans.

The last few weeks also saw the development of a much faster COVID-19 test and an experimental intranasal vaccine that was effective in mice.

Finally, a meta-analysis helps settle the matter of whether blood pressure drugs make COVID-19 better or worse, while an arthritis drug may reduce severe illness.

Article highlights:

Stay informed with live updates on the current COVID-19 outbreak and visit our coronavirus hub for more advice on prevention and treatment.

Russian candidate vaccine safe, triggers immune response

The Russian experimental vaccine, known as Sputnik V, uses a modified version of an adenovirus that causes the common cold. Denis Logunov, the study's first author and head of the research lab at Gamaleya, explains how it works.

“When adenovirus vaccines enter people’s cells, they deliver the SARS-CoV-2 spike protein genetic code, which causes cells to produce the spike protein. This helps teach the immune system to recognize and attack the SARS-CoV-2 virus,” Logunov says.

The researchers assessed the candidate vaccine in a small phase 1 and 2 trial that lasted 42 days and included 38 healthy participants aged 18–60.

At this point in the study, the scientists wanted to assess the experimental vaccine’s safety and its ability to elicit an immune response, rather than whether it can prevent infections with the new coronavirus.

The results showed a strong immune response in the participants. They developed antibodies and T cell responses, both of which are important in fighting off an infection.

The Russian candidate vaccine was also reported to be safe and did not elicit any serious side effects. Next, the team plans to enter phase 3 of the trial, which will involve 40,000 participants.

READER SURVEY

Please take a quick 1-minute survey

Your answers will help us improve our experience. You’re the best!

Repurposing an arthritis drug

Japanese-based scientists from Osaka University and Osaka Habikino Medical Center believe they could repurpose an arthritis drug to treat severe COVID-19.

The team began their research by focusing on cytokines, proteins secreted by immune cells, with key immunomodulatory functions. They aimed to understand their role in cytokine storms — the immune system phenomenon that may lead to fatal outcomes in COVID-19.

With this in mind, the scientists studied the cytokine profiles of 91 patients with cytokine storms due to “bacterial sepsis, acute respiratory distress syndrome, or burns.”

After focusing on various interleukins — a type of cytokine — the scientists found a rise in interleukin-6 (IL-6) early in the disease process, which piqued their interest.

In turn, this increase in IL-6 triggered a rise in a protein called PA-1, which leads to blood clotting.

So, the scientists gave participants injections of the antibody-based drug tocilizumab (Actemra), which blocks IL-6 signaling.

When people with severe COVID-19 received tocilizumab, their levels of the blood clotting PA-1 protein decreased. Also, the drug eased symptoms and improved critical illness for these patients.

MEDICAL NEWS TODAY NEWSLETTER

Stay in the know. Get our free daily newsletter

Expect in-depth, science-backed topline of our best stories every day. Tap in and keep your curiosity satisfied.

Enter your email

Your privacy is important to us

Intranasal vaccine works in mice

Researchers from Washington University School of Medicine in St. Louis (WUSTL) have devised a new experimental intranasal vaccine, tested in mice with COVID-19.

Similar to the Russian candidate vaccine, WUSTL's counterpart also uses a modified adenovirus inserted with the coronavirus' spike protein.

In mice, one vaccine dose protected against infection with SARS-CoV-2.

Speaking to MNT about their findings, senior study author Prof. Michael S. Diamond explained that the intranasal vaccine would not use a live form of the virus. This made it safer than other vaccines administered through the nose, such as the regular influenza vaccine.

“In these mouse models, the vaccine is highly protective. We’re looking forward to beginning the next round of studies and ultimately testing it in people to see if we can induce the type of protective immunity that we think will not only prevent infection but also curb pandemic transmission of this virus,” said Prof. Diamond.

“Any vaccine can cause side effects,” he continued. “However, because the vaccine does not replicate, it could not cause unanticipated infection the way a ‘live’ vaccine could — in this way, it would be safer.”

“We will soon begin a study to test this intranasal vaccine in nonhuman primates with a plan to move into human clinical trials as quickly as we can.”

— Prof. Michael S. Diamond

Hypertension drugs may improve COVID-19 survival

After much debate, a review pooling data from 19 studies concludes that long-term use of hypertension drugs, known as ACE2 inhibitors, might lower the risk of severe illness from the new coronavirus.

Since the beginning of the pandemic, the role of these drugs has been controversial. Some researchers suggest they might worsen outcomes, while other studies show no effect on infection severity.

The review, which is the largest meta-analysis on the subject, found that COVID-19 patients with high blood pressure who took the drugs were 33% less likely to die or have severe illness than patients with hypertension who did not take them.

Lead researcher Dr. Vassilios Vassiliou, of the Norwich Medical School at the University of East Anglia, United Kingdom, comments on the findings.

He says, “[T]he important thing we showed was that there is no evidence that these medications might increase the severity of COVID-19 or risk of death,” says Dr. Vassiliou.

“On the contrary, we found there was a significantly lower risk of death and critical outcomes, so they might, in fact, have a protective role — particularly in patients with hypertension.”

– Dr. Vassilios Vassiliou

He continues: “As the world braces itself for a potential second wave of the infection, it is particularly important that we understand the impact that these medications have in COVID-19 patients. Our research provides substantial evidence to recommend continued use of these medications if the patients were taking them already.”

For live updates on the latest developments regarding the novel coronavirus and COVID-19, click here.

Insomnia And Diabetes

Insomnia And Diabetes Link: डायबिटीज की राजधानी में क्या इंसोमनिया बढ़ा रहा है मरीजों की संख्या? (Navbharat Times: 2020922)

<https://navbharattimes.indiatimes.com/lifestyle/health/mental-disease-insomnia-may-be-a-trigger-factor-for-diabetes-type-two-a-recent-study-revives-in-hindi/articleshow/78248526.cms?story=6>

हमारे देश में बढ़ते शुगर रोगियों का एक बड़ा कारण नींद की कमी हो सकता है, यहां जानें क्यों सामने आ रही है यह बात...

mental disease insomnia may be a trigger factor for diabetes type two a recent study revives in hindi

Insomnia And Diabetes Link: डायबिटीज की राजधानी में क्या इंसोमनिया बढ़ा रहा है मरीजों की संख्या?

भारत को शुगर के रोगियों की राजधानी कहा जाता है। क्योंकि हमारे देश में दुनिया के सबसे अधिक डायबिटिक पेशेंट रहते हैं। इसके साथ ही हमारे देश में दुनियाभर के युवाओं की एक बड़ी आबादी भी रहती है। प्रधानमंत्री नरेंद्र मोदी के भाषणों में आप अक्सर सुनते होंगे कि हमारा राष्ट्र एक युवा राष्ट्र है। इसलिए हमारे देश में अपार ऊर्जा और अपार संभावनाएं हैं...

सपने पूरे करने के लिए सजगता जरूरी

-प्रधानमंत्री नरेंद्र मोदी हमारे देश के युवाओं को उनकी क्षमता और शक्ति का अहसास कराने के लिए बार-बार यह बात करते हैं कि हम एक युवा देश हैं। लेकिन हमारे देश के युवा अपनी शक्ति का पूरा उपयोग तभी कर पाएंगे जब वे मानसिक और शारीरिक रूप से स्वस्थ रहेंगे।

तेजी से बढ़ रहे हैं युवा रोगी

-हमारे देश में युवा रोगियों की संख्या में भी काफी तेजी से वृद्धि हो रही है। इसका मुख्य कारण है खान-पान और सेहत को लेकर बरती जा रही लापरवाही। यह एक बड़ी वजह है कि जिस कारण हमारे देश में ना केवल टाइप-1 बल्कि टाइप-2 डायबिटीज के रोगी भी बहुत तेजी से बढ़ रहे हैं।

एक नया कारण आया है सामने

-अब तक माना जाता रहा है कि टाइप-2 डायबिटीज की शिकायत आमतौर पर खान-पान और लाइफस्टाइल से जुड़ी दिक्कतों के चलते होती है। लेकिन हालही हुई एक स्टडी में यह बात सामने आई है कि टाइप-2 डायबिटीज की समस्या का एक बड़ा कारण इंसोमनिया भी है।

क्या होता है इंसोमनिया?

-नींद ना आने की बीमारी को इंसोमनिया कहा जाता है। जो लोग चाहकर भी सो नहीं पाते हैं, वे इस बीमारी से ग्रसित हो सकते हैं। इंसोमनिया की समस्या तनाव, एंजाइटी और डिप्रेशन की वजह से भी हो सकती है। क्योंकि इन मानसिक समस्याओं के कारण हमारे ब्रेन में हॉर्मोनल संतुलन बिगड़ जाता है और नींद प्रभावित होती है।

क्या है इंसोमनिया का शुगर से लिंक?

-पिछले दिनों यूके के वैज्ञानिकों द्वारा की गई एक स्टडी में यह बात सामने आई है कि जिन लोगों को इंसोमनिया की शिकायत होती है, उनमें डायबिटीज टाइप-2 का खतरा उन लोगों की तुलना में 17 प्रतिशत अधिक हो जाता है, जिनमें यह रोग नहीं होता है।

आपको बरतनी होगी यह सतर्कता

-स्वयं और अपने परिवार को डायबिटीज टाइप-2 के खतरे से बचाए रखने के लिए जरूरी है कि आप इस बात का ध्यान रखें कि सोने का एक निश्चित समय हो। सोने और जागने का समय निश्चित होने पर हमारे शरीर की बायोलॉजिकल क्लॉक ठीक तरह से काम करती है।

-इससे हमें हॉर्मोन्स से जुड़ी बीमारियां नहीं होती हैं, हमारा शरीर स्वस्थ रहता है तो दिमाग भी शांति से काम कर पाता है और नींद के लिए जरूरी मेलाटॉनिन हॉर्मोन को सही मात्रा में प्रड्यूस कर पाता है।

खतरनाक है नींद न आने की बीमारी, ऐसे करें बचाव

ऑफिस में सारा दिन आती रहती है नींद? ऐसे करें दूर

Navbharat Times News App: देश-दुनिया की खबरें, आपके शहर का हाल, एजुकेशन और बिजनेस अपडेट्स, फिल्म और खेल की दुनिया की हलचल, वायरल न्यूज और धर्म-कर्म... पाएँ हिंदी की ताजा खबरें डाउनलोड करें **NBT** ऐप लेटेस्ट न्यूज से अपडेट रहने के लिए **NBT** फेसबुक पेज लाइक करें

Surgery (Hindustan: 2020922)

https://epaper.livehindustan.com/imageview_329455_86427630_4_1_22-09-2020_2_i_1_sf.html

एम्स में 6 महीने से रूटीन सर्जरी बंद, मरीज परेशान

समस्या

नई दिल्ली | वरिष्ठ संवाददाता

दिल्ली के एम्स में लगभग पिछले छह महीने रूटीन सर्जरी बंद पड़ी हैं। फिलहाल इमरजेंसी सर्जरी ही कि जा रही हैं। अन्य बीमारियों से पीड़ित मरीजों को इलाज के लिए अभी भी भटकना पड़ रहा है। दिल्ली में कोरोना के अलावा कैंसर और दिल जैसी गम्भीर बीमारियों के मरीजों को खासी परेशानी झेलनी पड़ रही है।

दीपिका न्यूरो सर्जरी के लिए भटक रही : गाजियाबाद की रहने वाली दीपिका को न्यूरो की गंभर बीमारी है। 17 फरवरी 2019 को उन्होंने एम्स में दिखाया था तो डॉक्टरों ने उन्हें न्यूरो सर्जरी के लिए कहा था। उन्हें सर्जरी के लिए जुलाई का समय दिया था, लेकिन कोरोना की वजह से सर्जरी नहीं हो सकी। अब वो बेहद गंभीर रूप से बीमार हो गयी हैं। पिछले महीने उन्हें ओपीडी में बुलाया गया और कहा गया कि जल्द सर्जरी करेंगे, लेकिन अब कोरोना के मामले फिर से बढ़ने से समय बढ़ा दिया गया। अब वे दूसरे अस्पतालों में ओपीडी

रोजाना 700 छोटी-बड़ी सर्जरी होती थी

एम्स में कोरोना काल से पहले 700 से 750 छोटी बड़ी सर्जरी हर रोज होती थीं। हालांकि अब सिर्फ इमरजेंसी ऑपरेशन हो रहे हैं। ऐसे में न्यूरो, कैंसर जैसे विभागों में सर्जरी के लिए समय मिलने के लिए जहां लोगों को तीन से पांच साल का समय लग रहा था अब यह बढ़ सकता है।

में दिखाना चाहती हैं। न्यूरो सर्जरी की व्यवस्था एम्स के अलावा आरएमएल, सफदरजंग और जीबी पंत में ही उपलब्ध है। ऐसे में उन्हें कहीं भी ओपीडी के लिए समय नहीं मिल रहा।

कोरोना के इलाज में जुटे 50 फीसदी रेजिडेंट डॉक्टर : एम्स में एक वरिष्ठ डॉक्टर ने बताया कि मुख्य विभागों जैसे मेडिसिन, कार्डियो, नेफ्रोलॉजी और कैंसर विभाग के 50 फीसदी डॉक्टर कोरोना के इलाज में लिए गए हैं। कोरोना के इलाज के लिए अस्पताल में कॉमन पूल बनाया गया है। इसी पूल में हर विभाग से 50 फीसदी रेजिडेंट डॉक्टरों को लिया गया है।

सरकारी अस्पतालों में 500 आईसीयू बेड बढ़ेंगे : जैन

तैयारी

नई दिल्ली | त्रिष्ठ संवाददाता

दिल्ली में कोरोना के लगातार बढ़ते मामलों के बीच आईसीयू बेड की घटती संख्या ने दिल्ली सरकार की चिंता बढ़ा दी है। दिल्ली सरकार आने वाले सप्ताह में दिल्ली सरकार के अस्पतालों में 500 आईसीयू बेड बढ़ाने जा रही है। दिल्ली के स्वास्थ्य मंत्री सत्येंद्र जैन ने सोमवार को अस्पतालों के चिकित्सा अधीक्षकों के साथ बैठक के बाद यह बात कही।

दूसरे राज्यों के मरीजों से भरे आईसीयू बेड : स्वास्थ्य मंत्री सत्येंद्र जैन ने कहा कि दिल्ली के अस्पतालों में अब भी एक हजार आईसीयू बेड खाली पड़े हैं। स्वास्थ्य मंत्री का कहना है कि दिल्ली में पड़ोसी राज्यों से आने



सत्येंद्र जैन, स्वास्थ्य मंत्री

वाले मरीजों के कारण आईसीयू बेड भर रहे हैं। दिल्ली के अस्पतालों में भर्ती मरीजों में लगभग 30 प्रतिशत मरीज दूसरे राज्यों से हैं। दूसरे राज्यों के मरीजों ने जिन बड़े अस्पतालों का नाम सुन रखा होता है, वे वहीं जाते हैं।

ऐसे में सरकारी अस्पतालों में आईसीयू बेड अब भी आसानी से उपलब्ध हैं, सिर्फ निजी अस्पतालों में बेडों को लेकर थोड़ी समस्या है, जिसे जल्द ही हल कर दिया जाएगा।

सरकारी अस्पताल खाली, निजी फुल : कोरोना एप के डैशबोर्ड के

अनुसार बड़े निजी अस्पताल के बेड और आईसीयू करीब-करीब भर चुके हैं। इसके उलट सरकारी अस्पताल में बेड से लेकर वेंटिलेटर और आईसीयू बेड बड़ी संख्या में खाली हैं। हालांकि सरकार ने हाल ही में 33 बड़े अस्पतालों को कोरोना मरीजों के लिए 33 प्रतिशत आईसीयू बेड आरक्षित रखने के निर्देश दिए थे।

प्लाज्मा मिलने में कोई दिक्कत नहीं: सत्येंद्र जैन ने प्लाज्मा को लेकर एक बड़ी जानकारी दी। उन्होंने बताया कि अब दिल्ली में प्लाज्मा मिलने में किसी तरह की कोई परेशानी सामने नहीं आ रही है। आईएलबीएस से प्लाज्मा आसानी से मिल सकता है। उन्होंने कहा कि राजधानी में कोरोना से मौत की दर काफी कम हो गई है। 10 दिन की मृत्यु दर 0.77 है। अब तक कुल मृत्यु दर 2.02 है। दिल्ली में अब तक 25 लाख से ज्यादा जांच हो चुकी है।

Infection (Amar Ujala: 2020922)

दुनिया में संक्रमितों की संख्या 3.14 करोड़ के पार, इन देशों में कोरोना की दूसरी लहर शुरू (Amar Ujala: 2020922)

<https://www.amarujala.com/world/coronavirus-in-world-the-number-of-corona-positive-is-increasing-rapidly-in-the-world-the-second-wave-in-france-increases-the-pressure-on-the-government>

दुनिया में सोमवार तक कुल संक्रमितों की संख्या जहां 3.14 करोड़ पार हो गई है वहीं मृतकों की तादाद 9.67 लाख से ज्यादा हो चुकी है। इस बीच, फ्रांस में संक्रमण की दूसरी लहर के चलते सरकार और उसकी एजेंसियों पर दबाव बढ़ गया है। देश में पिछले एक दिन में दस हजार से ज्यादा मामले सामने आए हैं।

फ्रांस के स्वास्थ्य मंत्रालय ने बताया कि देश में पिछले 24 घंटे में 10,569 नए मामले सामने आए। जबकि शनिवार-रविवार को यह संख्या 13,498 रही। इस बीच, रविवार को संक्रमण के चलते 12 और लोगों की मौत की खबर है।

देश में अब तक कुल 31,585 लोगों की मौत हो चुकी है। दूसरी ओर, ब्रिटेन में भी हालात दोबारा संवेदनशील हो गए हैं। यहां भी संक्रमण की दूसरी लहर शुरू होने के चलते स्वास्थ्य एजेंसियों पर दबाव है। जबकि कई जगह सरकारी दिशा-निर्देशों की अनदेखी स्पष्ट रूप से देखी जा सकती है। प्रधानमंत्री बोरिस जॉनसन ने कहा है कि गाइडलाइन का सख्ती से पालन कराया जाएगा।

नेपाल में छह महीने बाद शुरू हुई घरेलू उड़ान सेवा

नेपाल में लॉकडाउन के कारण बंद घरेलू उड़ान सेवा सोमवार से शुरू हो गई। नेपाल सरकार की 14 सितंबर को मंत्रिपरिषद की बैठक के बाद लगभग छह महीने से बंद घरेलू उड़ान सेवा को शुरू करने का निर्णय लिया गया। नेपाल के विभिन्न स्थानों के लिए 50 उड़ान सेवा की अनुमति दी गई है। स्वास्थ्य सतर्कता और सामाजिक दूरी बनाए रखते हुए आंतरिक हवाई उड़ान सेवा जारी रहेगी।

अफ्रीकी हर्बल दवाओं के परीक्षण को डब्ल्यूएचओ का समर्थन

दुनियाभर में कोरोना के बढ़ते मामलों के बीच विश्व स्वास्थ्य संगठन ने कोरोना व अन्य बीमारियों के उपचार के लिए अफ्रीकी हर्बल दवाओं के परीक्षण प्रोटोकॉल का समर्थन किया है। डब्ल्यूएचओ ने कहा है कि यदि प्राचीन मेडिकल प्रोडक्ट सुरक्षा, प्रभाव और गुणवत्ता के पैमाने पर खरा उतरता है तो संगठन इसके फास्ट ट्रैक और बड़े पैमाने पर निर्माण की सिफारिश करेगा।