

News and Views

Most People can Produce Neutralizing Antibodies Against SARS-CoV-2

A study published in *PLOS Pathogens* has stated that a large number of people have the potential to produce neutralizing antibodies against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in severe cases of coronavirus disease 2019 (COVID-19).

The study also supports the use of combination antibody therapy for the prevention and treatment of COVID-19. Michael Mor of Tel Aviv University, and colleagues made use of molecular and bioinformatics techniques and compared B-cell responses among 8 patients with severe COVID-19 and 10 patients with mild symptoms, 1.5 months following infection. Patients who were very ill had higher concentrations of receptor-binding domain (RBD)-specific antibodies as well as raised B-cell expansion. Twenty-two antibodies were cloned from two patients. Of these, 6 were found to have potent neutralization against SARS-CoV-2. It appears that most people can produce neutralizing antibodies against SARS-CoV-2 in severe cases of the disease... (*ET Healthworld*)

COVID Clot Prevention: Early Prophylactic Anticoagulation

A new study suggests that starting heparin prophylaxis within 24 hours of hospital admission for COVID-19 was tied to considerably better outcomes.

Investigators noted that starting anticoagulation early was linked with 27% lower relative risk of 30-day mortality compared to no anticoagulation (14.3% vs. 18.7%, hazard ratio [HR] 0.73, 95% confidence interval [CI] 0.66-0.81). Preventive heparin use was associated with similar positive outcomes for inpatient mortality (HR 0.69, 95% CI 0.61-0.77) and initiation of therapeutic anticoagulation (HR 0.81, 95% CI 0.73-0.90). Additionally, early prophylaxis was not linked with increased risk of bleeding that needed transfusion (HR 0.87, 95% CI 0.71-1.05). The study included 4,297 patients admitted to Veterans Affairs (VA) hospitals between March 1 and July 31, 2020, with confirmed severe COVID-19 and no history of anticoagulation. The findings are published in *The BMJ*... (*Medpage Today*)

Inhaled Hyaluronan may Help COPD Patients

Aerosolized high-molecular-weight hyaluronan (HMW-HA) appears to improve acute exacerbations of chronic

obstructive pulmonary disease (COPD), suggests a new study.

In comparison with placebo, HMW-HA was found to be linked with a significantly shorter duration of noninvasive positive-pressure ventilation (NIPPV), lower systemic inflammatory markers and decreased measured peak airway pressure.

Researchers looked at 44 patients with a history of acute exacerbations of COPD requiring NIPPV. Three patients were excluded owing to heart failure. Twenty patients were given HMW-HA while 21 received placebo in association with NIPPV and standard medical therapy. Patients given HMW-HA were free from NIPPV sooner than those who were given placebo (mean, 5.2 vs. 6.4 days; $p < 0.037$). Patients given HMW-HA also had significantly shorter hospital stay compared to those in the placebo group (mean, 7.2 vs. 10.2 days; $p = 0.039$)... (*Medscape*)

Acute Malnutrition Estimated to Affect 2.3 Million Children Under 5 in Yemen in 2021

It is estimated that around 2.3 million children below 5 years of age in Yemen will likely suffer from acute malnutrition in 2021, warn four United Nations agencies.

Overall, 400,000 among these are estimated to have severe acute malnutrition and could even die if urgent treatment is not provided. These numbers represent an increase in acute malnutrition and severe acute malnutrition of 16% and 22%, respectively, among children under 5 years of age in comparison with 2020. The data come from the Integrated Food Security Phase Classification (IPC) Acute Malnutrition report that has been released by the Food and Agriculture Organization of the United Nations (FAO), UNICEF (the United Nations Children's Fund), the World Food Programme (WFP), the World Health Organization (WHO) and partners... (*WHO*)

Wide Variability in Blood Glucose Tied to More CVD in Diabetes Patients

Patients with type 2 diabetes with the highest variability in A1c levels over a period of 2 years were found to have significantly more first cardiovascular disease (CVD) events compared to similar patients with less A1c variability, reported a retrospective analysis of over 29,000 US patients.

Patients in the quartile with the greatest level of A1c variability were shown to have a 59% higher rate of CVD events, in comparison with patients in the quartile with the lowest level of A1c variability. Every 1 unit rise in A1c standard deviation was tied to a significant 18% increase in CVD events after adjusting for confounders. The results were published in *Diabetes Obesity and Metabolism...* (Medscape)

US CDC Issues Guidance for Reopening of Schools

The US Centers for Disease Control and Prevention (CDC) has issued new guidance for reopening of US schools. The agency recommends universal wearing of masks and physical distancing as important strategies to control COVID-19.

The guidelines also stress on facility cleaning, personal hygiene as well as contact tracing. CDC Director Rochelle Walensky stated that with the strategies suggested by the agency, there will be little to no transmission of COVID-19 in schools, if followed properly. The agency also recommended that priority should be given to teachers and school staff for COVID-19 vaccination.

US President Joe Biden had also assured that most K-8 schools would be reopened within 100 days of his taking office on January 20. The President lauded the agency's new guidance as he highlighted the problems faced by children due to school closure... (Reuters)

COVID Antibodies may Last for 8 Months After Vaccination, Says AIIMS Director

The Director of All India Institute of Medical Sciences (AIIMS) has stated that antibodies against the SARS-CoV-2 virus may last for up to 8 months or even longer following vaccination against COVID-19.

He further stated that scientists are exploring the long-term protection provided by the vaccines. He mentioned that antibodies will develop around 14 days following the second dose of the vaccine, adding that while it was not clearly known as to how long the protection will last, but it is believed to last for a duration of at least 8 months, or longer... (ET Healthworld – IANS)

Alien Cells may Account for COVID 'Brain Fog'

New research suggests that the long-term neurologic symptoms, such as brain fog, that some patients with COVID-19 experience, may occur as a result of the occlusion of brain capillaries by large megakaryocytes.

The findings, shared in a research letter, report on 5 post-mortem cases from patients who succumbed to COVID-19. Researchers noted large cells that

resembled megakaryocytes in cortical capillaries. Immunohistochemistry validated that they were megakaryocytes. According to the researchers, megakaryocytes have not been seen in the brain previously. The report was published online in *JAMA Neurology*.

Lead author David Nauen noted these cells in the first evaluation of brain tissue from a COVID-19 patient. He found no viral encephalitis, but there were unusually large cells in the brain capillaries. He stated that he had never seen these cells in the brain before... (Medscape)

High Rates of Anxiety among Physician Mothers

A new report suggests that physician mothers are reporting increased rates of moderate-to-severe anxiety during the COVID-19 crisis. Among them, frontline workers and informal caregivers have the highest rates of anxiety.

A survey was conducted among the Physician Moms Group on Facebook. Among over 1,800 respondents, around 41% of them had scores above the Generalized Anxiety Disorder 7-item scale (GAD-7) cut-off for moderate-to-severe anxiety. Additionally, 18% were found to have severe anxiety. Frontline workers and informal caregivers had higher anxiety levels. About 46% of them scored on the higher end of the GAD-7. The data is published in the *American Journal of Psychiatry...* (Medpage Today)

Drug to Reduce Bone Marrow Suppression due to Chemotherapy Approved

Trilaciclib became the first drug in its class to be approved by the US FDA for reducing the incidence of chemotherapy-induced bone marrow suppression in patients being given chemotherapy for extensive-stage small cell lung cancer.

The drug may provide protection to the bone marrow cells against damage from chemotherapy by inhibition of cyclin-dependent kinase 4/6.

Three randomized, double-blind, placebo-controlled trials conducted in patients with extensive-stage small cell lung cancer randomized a total of 245 patients to either trilaciclib or a placebo prior to chemotherapy. Patients given trilaciclib were found to have reduced odds of having severe neutropenia in comparison with patients receiving a placebo. Among the patients who had severe neutropenia, those on trilaciclib treatment had it for a shorter duration on average, compared to patients who received a placebo... (FDA)

Humidity from Masks may Decrease Severity of COVID-19

A study, published in the *Biophysical Journal*, led by researchers at the NIH's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), has noted that face masks considerably increase the humidity in the air that a person wearing the mask breathes in.

According to the investigators, this higher level of humidity in the inhaled air could possibly explain why wearing mask is tied to lower disease severity in those infected with COVID-19. Of note, hydration of the respiratory tract is beneficial for the immune system. High levels of humidity can potentially decrease the spread of a virus to the lungs by means of promoting mucociliary clearance (MCC)... (HT – ANI)

New SOPs Issued for Offices to Curb the Spread of Coronavirus

The Union Health Ministry has released a set of new "SOPs to contain the spread of COVID-19 in offices".

The SOPs suggest that if one or two cases of COVID-19 are reported at a workplace, the disinfection can be limited to the areas occupied and visited by the patient over the previous 48 hours. Work can resume following disinfection procedure according to the stated protocols. The ministry added that in case of a large number of cases at a workplace, the entire block or building need to be disinfected prior to resuming work. Staff residing in containment zones must inform their supervisors about the same and not report to the workplace until the containment zone is denotified. These staff should be allowed to work from home... (ET Healthworld – PTI)

Pfizer-BioNTech COVID-19 Vaccine Decreases Symptomatic Infection in Real World: Israeli Researchers

Researchers from Israel suggest that the Pfizer-BioNTech COVID-19 vaccine seems to decrease symptomatic COVID-19 infections by over 90% in the real world.

Preliminary findings indicate that the vaccine is highly effective in a mass vaccination campaign. The Clalit Research Institute looked at data on 1.2 million people; nearly half of these received the Pfizer-BioNTech vaccine. Patients receiving the vaccine were compared with those who didn't. The rate of symptomatic COVID-19 was found to reduce by 94% among those who were given two doses of the vaccine. Additionally, the rate of serious illness was found to be reduced by 92%.

The findings are in line with data obtained from Pfizer's vaccine trial, which stated that the vaccine yielded 95% protection against symptomatic COVID-19... (CNN)

Younger People Half as Likely as Adults to Contract COVID-19: Study

A new modeling study has shown that individuals below the age of 20 years have about half the odds of contracting COVID-19 infection, compared to adults. These individuals also have lesser odds of transmitting the disease to others.

The study looked at 637 households whose members had undergone polymerase chain reaction (PCR) testing in spring last year. Some of them also underwent serology testing for antibodies to SARS-CoV-2. It was noted that those below 20 had 43% lesser susceptibility to COVID-19 as compared to those above 20. Children appeared to have greater odds of getting a negative PCR result in spite of being infected. This could probably account for the reports from across the globe that lesser number of children are diagnosed in comparison with adults.

The findings are published in the journal *PLOS Computational Biology*... (NDTV – PTI)

About One-third of People with Mild COVID-19 have Symptoms Months Later: Study

A study published in *JAMA Network Open* assessed 177 people with confirmed COVID-19 infection for a period of up to 9 months. The study group included 150 outpatients with mild COVID-19 who were not hospitalized.

Researchers from the University of Washington noted that 30% of the respondents had persistent symptoms, the most common being fatigue and loss of smell or taste. Over 30% of the study respondents reported worse quality of life in comparison with that prior to falling ill. Additionally, 14 subjects (8%), including 9 who had not been hospitalized, had trouble performing at least one usual activity, like daily chores... (CNN)

Short Sleep Tied to Incident Dementia and All-cause Mortality

Novel evidence links sleep deficiency, dementia and mortality.

A new study included 2,812 adults, 65 years of age and older, from the National Health and Aging Trends Study (NHATS). The study subjects completed surveys about sleep disturbance and duration in 2013 and 2014. Investigators assessed the link between sleep

disturbance and deficiency and incident dementia and all-cause mortality over a period of 5 years. Fully adjusted Cox multivariate analysis revealed that subjects who slept 5 hours or less per night had about double the risk for incident dementia compared to those who slept longer (HR, 2.04). The risk of dementia was found to be higher among those who took 30 minutes or longer to fall asleep (HR, 1.45). The findings are published in *Aging... (Medscape)*

WHO Update on New Molecular Assays for Diagnosis of TB and Drug Resistance

The WHO has announced vital updates on new molecular assays in a Rapid Communication, which is expected to result in significant improvements in the diagnosis of tuberculosis (TB) and drug resistance among adults, adolescents as well as children.

A meeting of a Guideline Development Group was convened in December 2020 to update WHO policies on molecular assays employed for the diagnosis of TB and drug resistance. The evidence reviewed and presented in the Rapid Communication point to high diagnostic accuracy for 3 new technologies, including moderate complexity automated Nucleic Acid Amplification Tests (NAATs), to detect TB and resistance to rifampicin and isoniazid; low complexity automated NAATs to identify resistance to isoniazid and second-line anti-TB agents; and high complexity hybridization-based NAATs to detect resistance to pyrazinamide... (*WHO*)

Pulse Oximeters not to be used to Diagnose COVID-19: US FDA

The US FDA has cautioned that pulse oximeters should not be used to diagnose COVID-19. The devices could give inaccurate readings under some situations, stated the agency.

The WHO had included the use of pulse oximeter to detect patients who may require hospitalization in its clinical advice for treating COVID-19 in the month of January. The FDA has stated that the devices cannot be used to diagnose or exclude COVID-19. The agency further recommended not to depend on them to evaluate health. The agency recommended that attention should be focused on other indicators of low oxygen, including blueness of the face or a rapid pulse... (*Reuters*)

It is Unlikely That Food and Food Packaging Spread COVID-19

It is highly unlikely that food and food packaging can spread COVID-19, stated the US FDA, US Department of Agriculture and the CDC.

An FDA statement mentioned that available information and international scientific consensus support that foods that people consume and food packaging they touch are highly unlikely to spread COVID-19 infection. The agencies emphasized that there was a dearth of reliable evidence that could suggest that food or food packaging can transmit SARS-CoV-2. The FDA added that the amount of virus particles that could be picked up through touching a surface would be very small while the amount that is required to cause infection by means of oral inhalation would be very high. Therefore, the odds of catching infection by touching the surface of food packaging or eating food appear to be very low... (*CNN*)

A Third of Patients Recovered from COVID may have PTSD

A single-center study in Italy has shown that nearly 30% of the patients who recovered from COVID-19 developed post-traumatic stress disorder (PTSD).

Overall, 381 patients were followed. Women were more likely to develop PTSD (55.7%). Those who went on to develop PTSD had higher rates of history of psychiatric disorder (34.8%), and had higher odds of having had delirium or agitation during acute illness (16.5%). These patients were also reported to have more persistent medical symptoms following their initial illness (62.6%). Besides PTSD, it was noted that 17.3% had depressive episodes and 7% had generalized anxiety disorder. The study is published in *JAMA Psychiatry...* (*Medpage Today*)

Exposure to Air Pollution *in utero* Linked to Poorer Cognition Later

A study published online in the *Journal of Alzheimer's Disease* noted that *in utero* exposure to air pollution appears to be linked with poorer cognition later in life.

The longitudinal study noted that exposure to air pollution in early life seems to have a small yet detectable association with worse cognition from 11 to 70 years of age. The effect size, though, was small.

Investigators assessed data from 572 individuals in the Lothian Birth Cohort 1936 with information on lifetime residential history. Participants were subjected to the Moray House Test of cognitive ability at 11 years of age and again at 70, 76 and 79 years of age. A small association was evident between exposure to greater levels of air pollution in 1935, when participants were *in utero* and worse cognition between age 11 years and 70 years... (*Medscape*)

Heart Damage in COVID-19 Patients Discharged from Hospital: Study

A clinical study suggests that nearly half of the patients evaluated have had damage to their hearts after being hospitalized with severe COVID-19 and had raised troponin levels. The study, published in the *European Heart Journal*, assessed 148 patients from six acute hospitals in London. Injury was identified by magnetic resonance imaging (MRI) scans at least 1 month following discharge. Troponin levels were raised in all the patients in the study. The patients were followed up with MRI scans of the heart after discharge. Investigators noted high rates of heart muscle injury a month or two following discharge. Some of this may have been already present, but MRI scans revealed that some were new, and possibly caused by COVID-19... (HT – ANI)

No-fault Compensation Plan for COVID-19 Vaccines

The WHO and Chubb Limited (NYSE: CB) have agreed to a no-fault compensation program for 92 low- and middle-income countries that are getting support through the Gavi COVAX Advance Market Commitment (AMC) of the COVAX Facility.

The program represents the first and only vaccine injury compensation plan on a global level and intends to provide eligible people in these countries with a fast, fair and transparent process to obtain compensation for serious adverse events associated with the vaccines distributed by COVAX till June 30, 2022. The no-fault compensation program will be put into operation through the web portal www.covaxclaims.com by March 31, 2021... (WHO)

Teachers may have a Role in In-school Transmission of COVID-19, Says CDC

Quoting a study done in elementary schools in a Georgia school district, the US CDC has stated that teachers may have a vital role in the transmission of COVID-19 in schools. Mask use and social distancing measures were sometimes found to be lacking.

The study included around 2,600 students and 700 staff members from a school district's elementary schools. There were nine clusters of COVID-19 cases that included 13 educators and 32 students at 6 elementary schools. The CDC report states that the students sat at a distance of less than 3 feet, and inadequate use of masks had a role to play in spread in some cases. Additionally, students ate their lunch in classrooms, which could also have led to an increase in transmission. The report stated that based on the findings, it appears that teachers

can play a key role in in-school spread of COVID-19... (Reuters)

Study Implies COVID-19 Vaccination should be Prioritized for People with Genetic Disorders

A team of researchers has found in a recent study that adults with Down syndrome had greater odds of death due to COVID-19, compared to the general population. The study suggested that vaccinating people with genetic disorders against COVID-19 should be the priority.

The study, published in *The Lancet's EClinical Medicine*, included over 1,000 COVID-19 patients with Down syndrome, and noted that these patients had more severe symptoms at hospitalization and had increased rates of lung complications associated with increased death rate. Adults suffering from Down syndrome had a 3-fold higher likelihood of death due to COVID-19 in comparison with the general population. It was also noted that the increased risk of death was particularly evident in the fifth decade of life... (HT – ANI)

People Above 60 to be Vaccinated on Priority in India, Says Official

As the second phase of COVID-19 vaccination is set to begin in mid-March in the country, priority will be given to individuals 60 years of age and above as well as to those with comorbidities for longer duration, said Dr Suneela Garg, an advisor to Indian Council for Medical Research (ICMR).

Dr Garg stated that the beneficiaries will be split up depending on different criteria and every sub-group will have separate vaccination timelines. She added that there will be a key role of the private sector in the vaccination drive. She further mentioned that individuals with comorbidities like diabetes, hypertension, CVD, stroke, cancer, chronic respiratory diseases will be given priority over people suffering from other diseases... (NDTV)

Ghana Receives First Shipment of COVID-19 Vaccine Doses via COVAX Facility

Ghana has become the first country to receive the COVID-19 vaccine doses through the COVAX Facility in a historic step towards ensuring that there is equitable distribution of COVID-19 vaccines across the globe.

In all, 600,000 doses of the AstraZeneca/Oxford vaccine were shipped by the COVAX Facility on February 23 from the Serum Institute of India (SII) in Pune, India to Accra, Ghana. The shipment arrived in Accra on

the morning of February 24. This is the first batch of COVID-19 vaccines delivered in Africa by the COVAX Facility. The program aims to deliver at least 2 billion doses of COVID-19 vaccines by the end of this year... (UNICEF)

Survey in England Finds High Antibody Levels with Pfizer Vaccine

People in England who have been administered two doses of the Pfizer-BioNTech COVID-19 vaccine have developed strong antibody responses, suggests a new survey.

The survey conducted by the Imperial College London revealed that 87.9% of the individuals above 80 years of age tested positive for antibodies following two doses of the Pfizer vaccine. The figure stands at 95.5% among those below 60 years of age and 100% for those below 30. Close to 95% of the individuals below 30 years of age tested positive for antibodies 21 days after one dose, though the figure declined in older age groups. This home surveillance study for COVID-19 antibodies included more than 1,54,000 participants... (Reuters)

New Coronavirus Variant Found in New York City

Two research teams have reported that a concerning new coronavirus variant has been found in New York City and in the Northeast.

The mutations in this variant help it evade the body's immune response, besides evading the effects of monoclonal antibody treatment. The variant has been named as B.1.526. It has been noted among individuals affected in varied neighborhoods of New York City and scattered in the Northeast. One of the mutations that this variant carries is the same as that seen in the variant first identified in South Africa (B.1.351). There has been a steady rise in the detection rate from late December till middle of February, while there has been an alarming increase to 12.7% over the last 2 weeks... (CNN)

Concomitant Glucocorticoids and PPI use Increases Fracture Risk in RA Patients

Rheumatoid arthritis (RA) patients treated with oral glucocorticoids and proton pump inhibitors (PPIs) had an elevated risk for osteoporotic fracture, reported a large cohort study published online in *Annals of the Rheumatic Diseases*.

Concomitant use of glucocorticoids and PPIs was found to be linked with a 1.6 times increased risk of osteoporotic fracture (adjusted HR 1.60, 95% CI

1.35-1.89), reported researchers. Use of either oral glucocorticoids or PPIs alone was associated with only a 1.2 times increased risk.

For glucocorticoid alone, the adjusted HR was 1.23 (95% CI 1.03-1.47), and that for PPI use alone was 1.22 (95% CI 1.05-1.42). This was statistically lower than that for concomitant use of the two drugs... (Medpage Today)

WHO Certifies El Salvador as Malaria-free

El Salvador has become the first country in Central America to be certified as malaria-free by the WHO.

The certification of malaria elimination comes after over 5 decades of commitment by the government of El Salvador and its people to eliminate the disease from the country that is densely populated and has a topography that is favorable for malaria.

The certification of malaria elimination is given when a country proves that it has broken the chain of indigenous transmission for at least 3 years in a row. From 1990 to 2010, the number of malaria cases had dropped from over 9,000 to 26 in the country, and there have been no indigenous cases since 2017... (WHO)

UN-backed Policy Brief Urges for Action Addressing Long COVID

A policy brief, published by the WHO's Regional Office for Europe and the European Observatory on Health Systems and Policies, states that 1 in 10 individuals still feel ill 12 weeks after having COVID-19, and that authorities need to do more to support these people.

The UN-backed policy brief talks about what we know about long COVID and also summarizes countries' efforts in addressing the condition. Long COVID is associated with symptoms like severe fatigue and increased damage to the heart, lungs and brain. The document emphasizes the development of new care pathways, devising appropriate services, and addressing the more extensive impacts like employment rights, sick pay policies and access to disability benefits... (UN)

FDA Allows More Flexible Storage, Transportation for Pfizer-BioNTech Vaccine

The US Food and Drug Administration (FDA) has stated that undiluted frozen vials of the Pfizer-BioNTech COVID-19 vaccine can be transported and stored at temperatures that are commonly found in pharmaceutical freezers, for up to 2 weeks.

This comes as an alternative to the storage of the vaccine vials at temperatures of -80°C to -60°C (-112°F to -76°F).

Pfizer Inc. had submitted data to the US regulator which stated that its COVID-19 vaccine remained stable after undiluted vials were stored for up to 2 weeks at standard freezer temperature. However, this alternative storage temperature for frozen vials does not apply to the thawed vials prior to dilution, or the storage of thawed vials following dilution... (FDA)

People Above 45 with Comorbidities Need Doctor's Certificate for Vaccination in India

Individuals 45-60 years of age having comorbidities will need a certificate from a registered medical practitioner, either from public or private sector, stating that they are suffering from a disease that could heighten the risk of infection, and therefore, are eligible to receive the COVID-19 vaccination on priority, stated officials.

A protocol for doctors is yet to be issued. Those in the stated age group who have one or more comorbidities such as uncontrolled diabetes, heart disorders, chronic pulmonary, kidney diseases, cancer, have undergone transplant, those taking immune medication and have morbid obesity conditions can be given the vaccine... (ET Healthworld – TNN)

Most Severe COVID Linked with Four Cardiometabolic Conditions

A new study has shown that the majority of hospitalizations due to COVID-19 in the United States can be attributed to four pre-existing cardiometabolic conditions.

Out of 9,06,849 COVID-19 hospitalizations seen among US adults as of November 2020, obesity accounted for 30% of them, hypertension accounted for 26%, diabetes for 21%, and heart failure accounted for 12% of the hospitalizations. It is estimated that around 63.5% of the hospitalizations were associated with these cardiometabolic conditions. Investigators stated that these hospitalizations would have been preventable if these conditions were not present in the first place. Investigators further estimated that a reduction of 10% in these cardiometabolic conditions would have prevented 11.1% of the hospitalizations due to COVID... (Medscape)

Canada Approves AstraZeneca COVID-19 Vaccine

Canada has granted approval for the AstraZeneca COVID-19 vaccine, including the one produced by the Serum Institute of India (SII). Overall, 5,00,000 doses of the vaccine are expected to arrive in the country next week.

This is the third vaccine to be approved by Health Canada after the approval of vaccines developed by Pfizer-BioNTech and Moderna in December. Prime Minister Justin Trudeau stated that with the three vaccines, the country will now get over 6.5 million doses before March end. Additionally, tens of millions of more doses will reach between April and June. Twenty million doses have been ordered by Canada from AstraZeneca, of which 1.9 million will be received through COVAX in the first half of this year... (Reuters)

Open a Window to Reduce COVID-19 Transmission, CDC to Schools

The US CDC has issued new recommendations highlighting the significance of good ventilation in preventing the spread of COVID-19 in schools and daycares. The key recommendation is "Open a window".

For the first time, the CDC has separately stressed on the role of ventilation in preventing the spread of coronavirus. While the agency had previously talked about ventilation in its guidelines to schools, this time, an entire page has been dedicated to the matter. The CDC states that if it is safe to open doors and windows, it should be done. However, if it poses a safety or health risk, like falling, they should not be opened. The agency also advises to open the windows in transportation vehicles... (CNN)

More Than 1.37 Crore Vaccine Doses Administered in India

The 42nd day of the country-wide COVID-19 vaccination program saw 2,84,297 vaccine doses administered to HCWs and frontline workers (FLWs), taking the overall number of vaccinations to more than 1.37 crores, stated the Union Ministry of Health and Family Welfare (MoHFW).

Overall 1,37,56,940 doses have been administered across 2,89,320 sessions, according to the provisional report till 6 pm on February 26. Overall, 66,37,049 (76.6%) HCWs have received the first dose while 22,04,083 (62.9%) HCWs have been administered their second dose. Additionally, 49,15,808 (47.7%) FLWs have received the first dose. The five states that have recorded the highest number of vaccinations include Uttar Pradesh, West Bengal, Gujarat, Karnataka and Maharashtra... (NDTV – ANI)

COVID Vaccination Tied to Decline in Intubation Rates: Real World Data

Since the nationwide COVID-19 vaccination program with the Pfizer-BioNTech vaccine started in Israel, the

rates of mechanical ventilation have been reported to decline about two-thirds among older adults with the disease.

Investigators compared adults 70 years of age and older, who had the highest two-dose vaccination coverage in February, to adults 50 years of age and below, who had the lowest coverage. They compared the rates of mechanical ventilation in the two groups during October to December last year to the rates in February this year. They reported in the *Morbidity and Mortality Weekly Report* that the rates of mechanical ventilation among COVID-19 patients aged 70 years and above dropped by 67% between fall 2020 and February 2021, in comparison with patients below 50 years of age.

The ratio of ventilated older patients to younger patients was reported as 1.9:1... (*Medpage Today*)

SEC Asks Bharat Biotech to Submit Covaxin Phase 3 Efficacy Data Before Seeking Approval for Kids' Trial

The Subject Expert Committee (SEC) that advises the Drugs Controller General of India (DCGI) has asked Bharat Biotech to submit efficacy and safety data from the ongoing Phase III trials of Covaxin prior to seeking approval for conducting the trials on children.

The SEC has also asked the company to revise and submit the protocol of the trial for children to a Phase II/III study.

Bharat Biotech had sought approval to conduct Phase III trials of their vaccine on children aged 5-18 years. The SEC stated that sample size and other consequential changes must be made to the protocol, and the company should submit the revised clinical trial protocol for review... (*ET Healthworld – TNN*)

Single Pfizer Vaccine Dose Yields Strong Protection for Those who've been Infected: UK Studies

Just a single dose of Pfizer-BioNTech COVID-19 vaccine can produce an immune response in people who have already been infected with COVID-19 which is robust enough to protect them from future infection, suggest two new papers published in *The Lancet*.

One of the two new papers involved data on 51 HCWs in London. Twenty-four of them had previously had COVID-19. All of these healthcare workers received a first dose of the Pfizer-BioNTech vaccine and were tested for antibodies 19-29 days later. Among the participants who had a previous natural infection, vaccination heightened their antibody levels over 140-times. The second paper presented data on 72 HCWs vaccinated in late December. Twenty-one of them had previous

infection. Those who had a previous COVID-19 infection developed stronger immune responses to one dose of vaccine compared to those who had not been infected... (*CNN*)

Gym Sessions without Masks can Spread COVID-19: CDC

New studies from CDC suggest that gyms can be the hot spots for COVID-19 outbreaks if people don't wear face masks, even if social distancing guidelines are followed. The CDC released results from outbreaks at gyms that had a high attack rate during summer of 2020. In Hawaii, 21 people were reported to have caught COVID-19 infection in July after a cycling instructor infected with COVID-19 taught classes for 3 days and later tested positive. While the cycling stations were placed at a distance of over 6 feet from one another, none of the individuals wore masks. One of the participants was another instructor, and later taught kickboxing classes and conducted personal training sessions without a mask, leading to many COVID-19 cases.

In Chicago, 55 out of 81 individuals attending high-intensity fitness classes during the last week of August contracted COVID-19. The classes had only 10-15 people, and they were stationed over 6 feet apart. People were required to wear masks while entering the gym, temperature checks were conducted, and people were screened for symptoms at the facility. But, the people were allowed to remove the masks while exercising.

The CDC stated in the Chicago report that there is increased respiratory exertion in the enclosed spaces of indoor exercise, which assists in the transmission of the virus... (*Medscape*)

Risk of Human Spread of H5N8 Bird Flu Appears Low, Says WHO

The risk of human-to-human transmission of the H5N8 strain of bird flu appears to be low, after it was first identified in farm workers in Russia, stated the WHO.

Russia reported the first case of a strain of bird flu virus H5N8 being passed to humans from birds. The matter was notified to the WHO. Seven people in Russia were found to be infected with H5N8 strain after an outbreak on a poultry farm in Astrakhan. All of the affected individuals were asymptomatic, stated the WHO. Close contacts of the cases were monitored, and none of them showed signs of clinical illness. Therefore, on the basis of the available information, the risk of human-to-human transmission appears to be low, said WHO... (*Reuters*)