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THE HINDU

TB patients got unhindered support despite pandemic constraints: MoS Health

NEW DELHI:, NOVEMBER 10, 2021 17:29 IST

Efforts made by NTEP led to significant improvements in time-to-diagnosis, treatment adherence and outcomes, Bharati Pravin Pawar said.

Despite the **COVID-19** pandemic, India has managed to scale up access to free rapid molecular diagnostics and treatment for tuberculosis while financial and nutritional support to affected patients continued without any hindrance, Union Minister of State for Health Bharati Pravin Pawar said on Tuesday.

Efforts made by the National Tuberculosis Elimination Programme (NTEP) led to significant improvements in time-to-diagnosis, treatment adherence and outcomes, Ms. Pawar said as she chaired the brainstorming session on "Strategies for Ending TB by 2025", a Health Ministry statement said.

Reiterating Prime Minister Narendra Modi's commitment to eliminate TB in India by 2025, five years ahead of the Sustainable Development Goals (SDGs) target of 2030, Ms. Pawar said, "We have a mere 37 months before the deadline to end TB in the country. We need to shift gears and come up with innovative solutions to make up for the setbacks due to COVID-19 and move beyond." As proper diagnosis and prompt treatment are key to TB elimination, the NTEP is working towards accelerating universal TB care coverage and preventive services in the country.

The Indian EXPRESS

96 countries have agreed to mutual acceptance of Covid vaccination certificates with India: Minister

At present, 96 countries have agreed to mutual recognition of vaccination certificates and also those who recognise Indian vaccination certificates of travellers fully vaccinated with Covishield/WHO approved/nationally approved Covid vaccines

By: PTI | New Delhi |
November 9, 2021 6:48:20 pm

Ninety-six countries have agreed to mutual recognition of COVID-19 vaccination certificates with India, Union Health Minister Mansukh Mandaviya said on Tuesday.

The government continues to be in communication with the rest of the world so that beneficiaries of the world's largest COVID-19 vaccination programme are accepted and recognised, thereby easing travel for education, business and tourism purposes, Mandaviya said in a statement.

Continued in page no.29

TB preventive treatment has been prioritised under the pillar of "Prevent" in the National Strategic Plan to End TB, Ms. Pawar said.

Scaling up TB preventive treatment and at the same time decentralising it to bring services closer to patients, are of utmost importance to break the chain of transmission and breakdown of those with TB infection into full-blown TB disease, she said.

Highlighting the Union government's efforts for TB eradication, she added, "TB has now been made an essential part of Comprehensive Primary Health Care and is integrated with Ayushman Bharat scheme. Our aim is to detect cases early and prevent the emergence of new cases of TB by expanding TB care through engagement of various stakeholders, including the community. The nationwide 'TB Mukt Bharat Abhiyan' has been launched in this regard." Mentioning the introduction of newer anti-TB drugs, newer regimens and programmes, Ms. Pawar appreciated the research and development efforts to combat TB.

The session focussed on five pillars – improving case detection, improving treatment adherence, evolving ways to converge with other social welfare programmes, utilising and refining private sector engagement and finally integration of NTEP within our health system for accelerating TB eradication in the country, the statement said.

The Indian EXPRESS

Study identifies need to improve patient retention in the National TB Elimination Programme, highlights patients' trust relationship with private providers

Researchers found long delays in care access, with patients shuttling back and forth between providers and health sectors (private vs. public) before they are eventually enrolled on effective treatment.

Written by Anuradha Mascarenhas | Pune | October 31, 2021 12:44:12 pm.

Given the complexity of Multi Drug Resistance – Tuberculosis MDR-TB diagnosis and care, a new study sought to address key knowledge gaps in MDR risk factors, care delays, and drivers of delay to help guide disease control.

Researchers found long delays in care access, with patients shuttling back and forth between providers and health sectors (private vs. public) before they are eventually enrolled on effective treatment.

Additional evidence for recent transmission of drug-resistant TB in crowded localities/slum areas was also found, researchers said in their study "Tuberculosis Pathways to Care and Transmission of Multidrug-Resistance in India" published in a top ranked – American Journal of Respiratory and Critical Care Medicine on October 27 this year

The research team, including Dr. Sachin Atre of Pune based D. Y. Patil Medical College and the Johns Hopkins Center for Clinical Global Health Education and Dr. Maha Reda Farhat, assistant Professor of Biomedical Informatics at Harvard Medical School, Boston, USA.

"We believe these findings are of current interest to the Indian public given that Covid-19 has further limited testing and diagnosis capacity for TB in India over the last 18 months," Dr Atre said.

Researchers conducted interviews with adults registered with the National TB Elimination Program (NTEP) for MDR (n=128) and non-MDR-TB (n=269) treatment to quantitatively and qualitatively study care pathways. The study conducted in 2018-19 was funded by Harvard-Dubai Centre for Global Health Delivery and it

was done among patients who are registered with the National TB Elimination Control Program (NTEP) in Maharashtra.

They collected treatment records and GeneXpert-TB/RIF diagnostic reports. MDR-TB was associated with young age, and crowded residence. GeneXpert rifampicin resistance diversity was measured at 72.5% .Delay decreased with wider access to GeneXpert testing. Pathways to care were complex with a median of 4 providers. Of MDR-TB patients, 68% had their first encounter in the private sector and this was associated with a larger number of subsequent healthcare encounters and huge expenditures.

The association of MDR with young age, crowded locality and low genotypic diversity (means many patients have the same resistant TB strain which may cause an epidemic situation) raise concerns of ongoing MDR-TB transmission which is fueled by long delays in care.

Delays are decreasing with GeneXpert use, suggesting the need for routine use in presumptive TB and provision for that. The study identified the need to improve patient retention in the NTEP and highlight patients' trust relationship with private providers.

Over 33 lakh children in India malnourished, 17.7 lakh of them severely malnourished: Govt data

Also, India has slipped to the 101st position in the Global Hunger Index (GHI) 2021 of 116 countries, from its 2020 position of 94th and is behind its neighbours Pakistan, Bangladesh and Nepal.

By: PTI | New Delhi |
November 7, 2021 7:08:16 pm

Over 33 lakh children in India are malnourished and more than half of them fall in the severely malnourished category with Maharashtra, Bihar and Gujarat topping the list, the WCD ministry has said in response to an RTI query.

Prompting concern that the Covid pandemic could exacerbate the health and nutrition crisis among the poorest of the poor, the Women and Child Development ministry estimates that there are 17,76,902 (17.76 lakh/1.7 million) severely acute malnourished children (SAM) and 15,46,420 (15.46 lakh/1.5 million) moderately acute malnourished (MAM) children as of October 14, 2021.

The total 33,23,322 (33.23 lakh/3.3 million) is a compilation of data from 34 states and union territories, the ministry said in response to an RTI query by PTI. The numbers were registered on the Poshan tracker app developed last year as a governance tool for real-time monitoring of nutritional outcomes.

While the numbers are alarming in themselves, a comparison with figures from last November makes them even more so. A 91 per cent rise in the number of SAM children has been seen between November 2020 and October 14, 2021 — up from 9,27,606 (9.27 lakh) to 17.76 lakh now.

However, the two sets of figures are based on different methods of data collection. The number of SAM children (from six months to six years) identified last year was counted by 36 states and union territories and conveyed to the Centre. The latest figures are through the Poshan tracker where the numbers were directly entered by anganwadis and accessed by the Centre and the age group of the children has not been specified. The World Health Organisation defines SAM by very low weight-for-height or a mid-upper arm circumference less than 115 mm, or by the presence of nutritional oedema. MAM is

defined as moderate wasting and/or mid-upper-arm circumference (MUAC) greater or equal to 115 mm and less than 125 mm.

Both MAM and SAM have severe health repercussions on the health of a child. Children suffering from SAM have very low weight for their height, and are nine times more likely to die in case of diseases due to their weakened immune system. Those suffering from MAM are also at increased risk of morbidity and mortality during childhood.

According to the RTI reply quoting the Poshan tracker, Maharashtra registered the highest number of malnourished children at 6,16,772 (6.16 lakh) with 1,57,984 (1.57 lakh) MAM children and 4,58,788 (4.58 lakh) SAM children. Number two on the list is Bihar with 4,75,824 (4.75 lakh) malnourished children (3,23,741 MAM children and 1,52,083 SAM children). Gujarat registered the third highest number of such children at 3,20,465 (3.20 lakh) with 1,55,101(1.55 lakh) MAM children and 1,65,364 (1.65 lakh) SAM children.

Responding to the numbers, Child Rights and You (CRY) CEO Puja Marwaha said the Covid pandemic has impacted nearly all socio-economic indicators negatively and threatens to undo much of the progress made over the past decade.

"Services like ICDS (Integrated Child Development Scheme) and midday meals in schools have become irregular during the prolonged closure of schools. These have severely affected children living in multi-dimensional poverty disproportionately, since they have been largely dependent on these services to fulfil their rights and entitlements," Marwaha told PTI.

Unless challenges related to adequacy in budgetary allocations to secure nutrition security of children and bottlenecks in utilisation are addressed, India will be unable to mitigate the loss caused due to the pandemic, she added.

Of the other states, Andhra Pradesh registered 2,67,228 (2.76 lakh) malnourished children (69,274 MAM children and 1,97,954 SAM children) and Karnataka registered 2,49,463 (2.49 lakh) such cases (1,82,178 MAM children and 67,285 SAM children).

Uttar Pradesh has 1,86,640 (1.86 lakh) malnourished children (1,14,094 MAM children and 72,546 SAM children) while Tamil Nadu recorded 1,78,060 (1.78 lakh children (1,20,076 MAM children and 57,984 SAM children). Following close behind, Assam has 1,76,462 (1.76 lakh) cases of malnourishment (1,17,016 MAM children and 59,446 SAM children) and Telangana 1,52,524 (1.52 lakh, 95,033 MAM and 57,491 SAM children).

New Delhi is not too far behind. The combined number of SAM and MAM children in the national capital is 1,17,345 (1.17 lakh) with 20,122 MAM and 97,223 SAM children.

It is extremely important to recognise malnutrition early and to institute appropriate therapy to prevent worsening of malnutrition, said Anupam Sibal, group medical director and senior paediatrician, Apollo Hospitals Group.

"We know that children who are malnourished have a greater risk of infections, have less energy and perform less than their genetic potential in school. The management of malnutrition requires a holistic approach starting with adequate nutrition of pregnant and lactating ladies, exclusive breastfeeding for six months, focusing on appropriate weaning and balanced nutrition in the first few years of life," Sibal told PTI.

Manish Mannan, head of department, paediatrics and neonatology, Paras Hospitals, added that children with severe acute malnutrition need to be treated with specialised therapeutic diets alongside the diagnosis and

management of complications during in-patient care.

"Nutrition counselling has long been used as an approach to MAM management in situations where caregivers may have access to affordable food, and knowledge of appropriate care practices is not a constraint. This approach is predicated on the assumption that nutritious food is available, but also that caregivers do not have sufficient awareness of how to combine foods into appropriate diets for malnourished or at-risk children," Mannan said.

It is important, he stressed, to assess any associated illness alongside treatment of malnutrition. Sometimes there is an underlying illness, which is responsible for malabsorption, a renal disorder or even diseases like diabetes and tuberculosis which may lead to malnutrition.

"Therefore, apart from diet, it is also important to look into the possible organic causes and the effects of malnutrition on the body," he said.

The last available figure of malnourished children is from NFHS-4 (National Family Health Survey) in 2015-16 according to which 38.4 per cent of children under five years are low height-for-age and 21 per cent wasted or low weight-for-height in India. NFHS-5, released in December last year, which gave figures for 22 states and UTs also presented a grim scenario and showed that malnutrition increased among children in 2019-20 from 2015-16 in 22 states and UTs.

Also, India has slipped to the 101st position in the Global Hunger Index (GHI) 2021 of 116 countries, from its 2020 position of 94th and is behind its neighbours Pakistan, Bangladesh and Nepal.

To tackle the high persistence of malnutrition in the country, the Centre launched the Poshan Abhiyan programme in 2018 to reduce low birth weight, stunting and undernutrition and anaemia among children, adolescent girls and women.

According to Census 2011, there are over 46 crore children in the country.

The Indian EXPRESS

India opens to vaccinated foreign tourists after 18 months

India has began allowing fully vaccinated foreign tourists to enter the country on regular flights, in the latest easing of coronavirus restrictions as infections fall and vaccinations rise.

By: AP | New Delhi |
Updated: November 15, 2021 3:33:22 pm

Tourists entering India must be fully vaccinated, follow all Covid-19 protocols and test negative for the virus within 72 hours of their flight, according to the health ministry | Representational image/file

India began allowing fully vaccinated foreign tourists to enter the country on regular commercial flights on Monday, in the latest easing of coronavirus restrictions as infections fall and vaccinations rise.

Tourists entering India must be fully vaccinated, follow all Covid-19 protocols and test negative for the virus within 72 hours of their flight,

according to the health ministry. Many will also need to undergo a post-arrival Covid-19 test at the airport.

However, travelers from countries which have agreements with India for mutual recognition of vaccination certificates, such as the U.S., U.K. and many European nations, can leave the airport without undergoing a Covid-19 test.

This is the first time India has allowed foreign tourists on commercial flights to enter the country since March 2020, when it imposed one of the toughest lockdowns in the world in an attempt to contain the pandemic. Fully vaccinated tourists on chartered flights were allowed to enter starting last month.

It comes as coronavirus infections have fallen significantly, with daily new cases hovering at just above 10,000 for over a month.

To encourage travelers to visit India, the government plans to issue 500,000 free visas through next March. The moves are expected to boost the tourism and hospitality sector which was battered by the pandemic.

With more than 35 million reported coronavirus infections, India is the second-worst-hit country after the U.S. Active coronavirus cases stand at 134,096, the lowest in 17 months, according to the health ministry.

Nearly 79% of India's adult population has received at least one vaccine dose while 38% is fully vaccinated. The federal government has asked state administrations to conduct door-to-door campaigns to accelerate the vaccine campaign.

Fewer than 3 million foreign tourists visited India in 2020, a drop of more than 75% from 2019, when tourism brought nearly $30 billion in earnings.

The Indian EXPRESS

Efficacy of Covid-19 shots wanes, fueling boosters debate

A study found that the Pfizer-BioNTech vaccine is about 90% effective at preventing symptomatic infection two weeks after the second dose but drops to 70% effective after five months. However, public health experts say the decline doesn't mean vaccines aren't working.

By: New York Times |
November 15, 2021 9:25:28 am

Julissa Vasquez, 23, receives a Covid-19 vaccination as part of a vaccine drive in Los Angeles, California, US. (Reuters/File Photo)

Written by Amy Schoenfeld Walker and Josh Holder

As tens of millions of eligible people in the United States consider signing up for a Covid-19 booster shot, a growing body of early global research shows that the vaccines authorized in the United States remain highly protective against the disease's worst outcomes over time, with some exceptions among older people and those with weakened immune systems.

But although the vaccines' effectiveness against severe disease and hospitalization has mostly held steady, even through the summer surge of the highly transmissible delta variant, a number

of published studies show that their protection against infection, with or without symptoms, has fallen.

Public health experts say the decline doesn't mean vaccines aren't working.

In fact, many studies show that the vaccines remain more than 50% effective at preventing infection, the level that all Covid vaccines had to meet or exceed to be authorized by the Food and Drug Administration back in 2020. But the significance of these declines in effectiveness — and whether they suggest all adults should be eligible for a booster shot — is still up for debate.

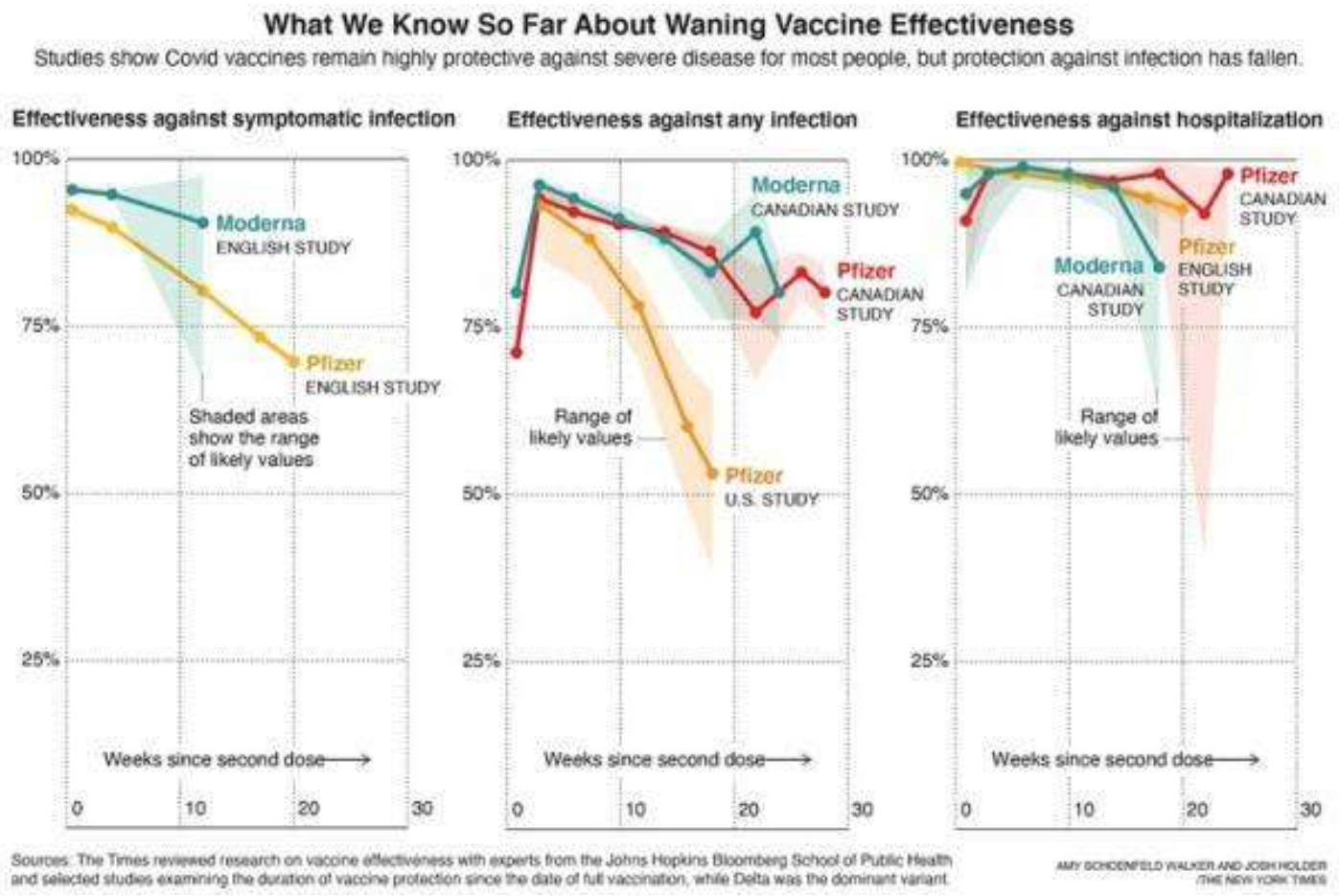
A study in England examined the vaccines' effectiveness against the delta variant over time. It found that the Pfizer-BioNTech vaccine is about 90% effective at preventing symptomatic infection two weeks after the second dose but drops to 70% effective after five months.

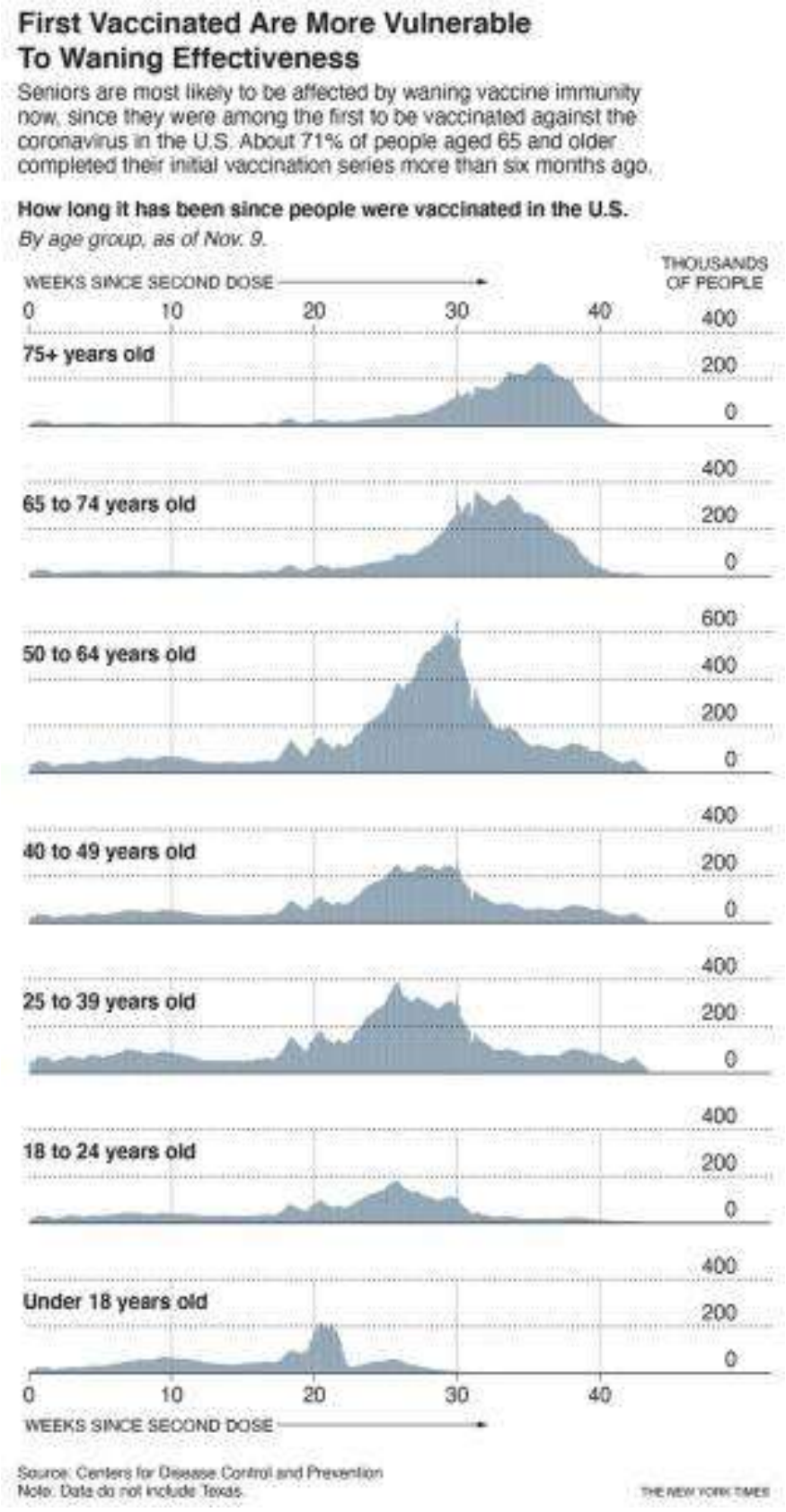
The same study found that the Moderna vaccine's protection also drops over time.

A study in the US and another in Canada looked at the vaccines' effectiveness at preventing any infection from delta, symptomatic or not. Although they found different levels of decline, both studies found that the vaccines' protection dropped over time.

But both the English and Canadian studies found that even after several months, the Pfizer-BioNTech and Moderna vaccines remain highly effective at preventing hospitalization.

Each of the three studies showed a different rate of decline in vaccine effectiveness, which can vary in studies depending on factors such as location, the study's methods, and any behavior differences between those who have been vaccinated and the unvaccinated. Although





(Source: The New York Times)

one of the studies has been published, the other two have not yet been peer reviewed. Still, experts say that the research generally shows trends.

"The main objective of the Covid vaccine is to prevent severe disease and death, and they are still doing a good job at that," said Melissa Higdon, a faculty member at the Johns Hopkins Bloomberg School of Public Health, who leads a project to compile research on Covid vaccine performance.

But the decline in protection against infection will have an effect, she said.

"With true declines in vaccine effectiveness, we'll likely see more cases overall," said Higdon.

Data compiled by the Centers for Disease Control and Prevention show similar trends for the mRNA vaccines, and they also suggest that the single-dose Johnson & Johnson vaccine is less effective against severe outcomes and infection than Pfizer or Moderna.

These results have helped to shape current booster recommendations in the US: Among Pfizer and Moderna recipients, those 65 and older, and adults at high risk, are eligible six months after their second shots. Any adult immunized with J&J may get a booster after two months.

Pfizer and BioNTech asked the FDA last week to approve boosters for all adults. But experts are divided over whether booster shots are necessary for those beyond the most vulnerable.

There has been more agreement among experts about the need to offer extra protection to adults older than 65. The declines observed in vaccine effectiveness for this age group may have greater repercussions, since older people face a higher risk of hospitalization.

"For those over 65, getting a booster helps cover your bases to make sure you are extra, extra protected, because the consequences are higher," said Eli Rosenberg, deputy director for science in the Office of Public Health at the New York State Department of Health, who has studied Covid vaccine effectiveness.

Seniors are also most likely to be affected by waning vaccine immunity now, since they were among the first to be vaccinated in the U.S. About 71% of people ages 65 and older — about 36 million people — completed their initial vaccination series more than six months ago. So far, about 31% have received a booster shot.

An additional 69 million people in the US younger than 65, more than a quarter of that age group, are also past that six-month mark. Not all are eligible for booster shots, although the federal government may soon decide to extend eligibility for the Pfizer booster to everyone 18 and older.

Other countries, including Israel and Canada, have authorized booster shots for all adults. Early data from Israel shows that booster shots are effective at protecting against infection and hospitalization, at least in the short term.

But experts worry that a national focus on boosters will detract from what should be the country's most important goal.

"It's easy with all the discussion about boosters to lose that really important message that the vaccines are still working," Rosenberg said. "Going from an unvaccinated to a vaccinated person is still the critical step."

The Indian EXPRESS

'A scandal': WHO says world's rate of Covid-19 booster shots outstrips poorer countries' vaccinations

Only 4.5% of people in low-income countries have received at least one dose of a coronavirus vaccine, according to the Our World in Data project at the University of Oxford.

By: New York Times |
November 13, 2021 1:40:15 pm

An 87-year-old man receives his booster shot at the vaccination center in Frankfurt, Germany. (AP)

Written by Daniel E. Slotnik

Six times more booster shots of coronavirus vaccine are being administered around the world daily than primary doses in low-income countries, the director-general of the World Health Organization said Friday, calling the disparity "a scandal that must stop now."

The official, Dr. Tedros Adhanom Ghebreyesus, and others at WHO have regularly criticized wealthy nations for hoarding vaccines while lower-income countries do not have enough doses to vaccinate their elderly, front-line health care workers and other high-risk groups. In August, Tedros called for a global moratorium on boosters that he later extended until the end of the year.

However, nations including Germany, Israel, Canada and the United States have gone ahead with booster programs. The WHO said in an email that 92 countries had confirmed programs to provide added doses and that none of them were low-income.

About 28.5 million Covid vaccine doses are given daily around the world. According to the WHO, about a quarter of those are booster or additional doses. (Boosters are meant to bolster protection for those who were earlier fully vaccinated; additional doses are for immunocompromised people whose initial vaccinations failed to sufficiently protect them against the virus.)

WHO officials contrasted the at least 6.9 million added daily doses globally with 1.1 million primary doses being given in low-income countries.

Only 4.5% of people in low-income countries have received at least one dose of a coronavirus vaccine, according to the Our World in Data project at the University of Oxford, a figure that is dwarfed by rates in wealthier countries.

The United States recently authorized booster shots for certain recipients of Pfizer-BioNTech's and Moderna's vaccines, and everyone who took Johnson & Johnson's vaccine. This week, Colorado and California announced that they would allow booster shots for all vaccinated adults.

Experts in the United States have been divided over whether boosters are necessary for most healthy Americans, and many say that the original course of vaccination continues to offer strong protection against serious illness and hospitalization. Other experts argue that new data indicate that the boosters counteract waning protection.

Tedros also warned that access to vaccines was not enough to stop the virus, pointing to a surge of infections and deaths in Europe that has led the Netherlands to plan a partial lockdown, the first recent lockdown in the region affecting both vaccinated and unvaccinated people.

"Covid-19 is surging in countries with lower vaccination rates in Eastern Europe, but also in countries with some of the world's highest vaccination rates in Western Europe," Tedros said. "It's another reminder, as we have said again and again, that vaccines do not replace the need for other precautions."

Every country should tailor its response to its situation, he said, but should also use measures like physical distancing and masking to help curb transmission and reduce pressure on health systems.

The Indian EXPRESS

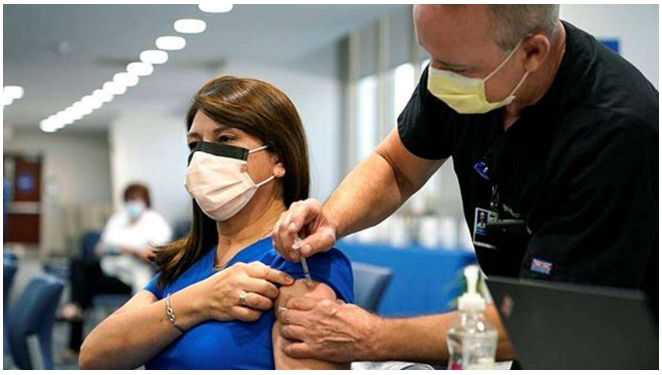
One in three Americans aged 65 and above has got COVID-19 booster shot: CDC

Those figures are up from the 434,486,889 vaccine doses the CDC said had gone into arms by Nov. 10 out of the 541,361,525 doses delivered.

By: Reuters |
November 13, 2021 11:03:32 am

One in three Americans aged 65 and above has received a COVID-19 booster shot, data from the U.S. Centers for Disease Control and Prevention showed on Friday.

The country had administered 437,352,000 doses of COVID-19 vaccines in the country as of Friday morning and distributed 551,000,705 doses.



A person receives a Pfizer COVID-19 booster shot from Douglas Houghton, right, at Jackson Memorial Hospital Tuesday, Oct. 5, 2021, in Miami. (AP Photo)

Those figures are up from the 434,486,889 vaccine doses the CDC said had gone into arms by Nov. 10 out of the 541,361,525 doses delivered.

The agency said 225,606,197 people had received at least one dose while 194,747,839 people had been fully vaccinated as of 6:00 a.m. ET on Friday. The CDC tally includes two-dose vaccines from Moderna and Pfizer/BioNTech,, as well as Johnson & Johnson's one-shot vaccine.

About 27.7 million people have received a booster dose of either Pfizer, Moderna or Johnson & Johnson's COVID-19 vaccine. Booster doses from Moderna and Johnson & Johnson were authorized by the U.S. health regulator on Oct. 20. Around 16 million people above the age of 65 years had received a third dose.

The Indian EXPRESS

Regulator to study Covaxin data before nod for minors

DCGI had sought additional information on two specific areas of Covaxin paediatric clinical trials: the number of children and the disaggregated age groups; and what the adverse events following immunisation were among these groups.

Written by Kaunain Sheriff M | New Delhi |
Updated: November 15, 2021 7:17:39 am

India's drug regulator will take a **final call on approving Covaxin for minors** after examining the "voluminous additional data" it has recently received on adverse events following immunisation reported in the vaccine's paediatric clinical trials, The Indian Express has learnt.

Top government sources told The Indian Express that the Drug Controller General of India (DCGI) had sought additional information on two specific areas of Covaxin paediatric clinical trials: the number of children and the disaggregated age groups; and what the adverse events following immunisation were among these groups. In response, Bharat Biotech has "recently" submitted the voluminous data to the drug regulator, sources said.

DCGI received a recommendation from the Subject Expert Committee on October 12 to grant emergency use authorisation for the Bharat Biotech-made vaccine for the 2-18 age group.

"The information is voluminous. The regulator is studying and scientifically scrutinising it. After this, the regulator will take a final decision on the grant of EUA for Bharat Biotech's Covaxin for the age group of 2-18 years," one source said. The National Technical Advisory Group on Immunization (NTAGI) will make recommendations to the government for use of Covaxin in minors in the national immunisation drive only after a final decision is taken by the drug regulator, sources said.

NTAGI is the advisory body on immunisation. It provides guidance to the government on vaccination by undertaking technical reviews of

scientific evidence on matters related to immunisation. The Subject Expert Committee's emergency use authorisation is among the first expert approvals in the world for a Covid-19 vaccine for the 2-18 age group.

Unlike the other approvals for Covid-19 vaccines, however, the drug regulator did not immediately approve Covaxin on the basis of the recommendation. Instead, it is independently conducting a detailed scrutiny of the data of the paediatric Covaxin trials. "The scientific bodies will not rush the process. The final call be taken with extreme caution and care," a source said.

In parallel, the standing technical sub-committee of the NTAGI, sources, said, is in the final stages to recommend "if and when, vaccination for children is rolled out, whether it should be graded based on age or whether it should be graded based on comorbdities".

NTAGI is in the final stages of its deliberations to recommend Zydus Cadila's three-dose Covid-19 vaccine for minors. Sources said that besides deliberating on child vaccination, the sub-committee of NTAGI is also examining two other issues: the need for a booster dose; and vaccine mixing.

The Indian EXPRESS

Gujarat: Only fully vaccinated to have access to public utility services in Surat from Monday

Around 6.68 lakh people are yet to take their second dose in Surat.

By: Express News Service | Surat |
Updated: November 13, 2021 8:10:54 pm

A total of 57.87 lakh people or 62.43 per cent of the eligible population have been partially and fully vaccinated in Surat. (File)

To spread awareness and nudge people into getting their second dose of the Covid-19 vaccination, only fully vaccinated people will be allowed to access services of the Surat Municipal Corporation (SMC) from Monday.

"We want to make sure that all eligible people get fully vaccinated leaving no chance for further infections. Due to some unknown reasons, the citizens who had taken the first dose are showing carelessness about their second doses that are due. Security staff have been deployed at various public utility centres of SMC and other places and zone offices to check the Covid certificates of the visitors," said SMC Health officer Dr Pradip Umrigar. The services restricted to those not fully vaccinated include the city and BRTS bus services, garden, zoo, science centre, swimming pools, aquarium, Gopitalo (amusement park), libraries, and all zonal and ward offices of SMC. Partially vaccinated citizens will be allowed for such services only after Covid tests.

Around 6.68 lakh people are yet to take their second dose in Surat. According to the SMC health department, of the eligible targeted population of 34.32 lakh people, 36.44 lakh people (106.17 per cent) have taken their first dose, while 21.43 lakh people (76.22 per cent) are fully vaccinated. This means that a total of 57.87 lakh people or 62.43 per cent of the eligible

population have been partially and fully vaccinated in Surat. Meanwhile, of the 175 centres in the city where the vaccination drive is being carried out, second doses are given only at 120 centres.

The strict measures come at a time when it has come to light that around 3,000 SMC employees are yet to take their second doses due to various reasons and the heads of all municipal departments have been intimated to ensure their staffers get fully vaccinated.

The move comes at a time when the economic capital of Gujarat is coming out of the Diwali vacation and returning to normalcy. The civic body has raised its guard as residents are returning to the city after the vacation.

"As the people are returning to the city after their vacations, we have also set up Covid tests at the five entry and exit points of the city as well as at the airport, bus depots and railway stations, etc. Prior to Diwali, we were carrying out around 4,000 tests per day, but now we have increased the testing to up to 7,200 tests per day. In coming days we will carry out tests of 10,000 people per day," Umrigar added.

Currently, Surat has 39 active cases. While three positive cases were reported Friday, the figure rose to seven Saturday.

The Indian EXPRESS

Europe becomes Covid-19's epicentre again, some countries look at fresh curbs

Countries including the Netherlands, Germany, Austria and the Czech Republic are taking or planning measures to curb the spread.

By: Reuters | London, Milan |
November 13, 2021 10:17:22 am

Europe has become the epicentre of the pandemic again, prompting some governments to consider re-imposing unpopular lockdowns in the run-up to Christmas and stirring debate over whether vaccines alone are enough to tame COVID-19.

Europe accounts for more than half of the average 7-day infections globally and about half of latest deaths, according to a Reuters tally, the highest levels since April last year when the virus was at its initial peak in Italy.

Governments and companies are worried the prolonged pandemic will derail a fragile economic recovery.

Countries including the Netherlands, Germany, Austria and the Czech Republic are taking or planning measures to curb the spread.

Caretaker Dutch Prime Minister Mark Rutte announced **a three-week partial lockdown** from Saturday, Western Europe's first since the summer. "The virus is everywhere and needs to be combated everywhere," Rutte said in an address on Friday evening.

The fresh concerns over what British Prime Minister Boris Johnson described on Friday as "storm clouds" over Europe come as successful inoculation campaigns have plateaued ahead of the winter months and flu season.

About 65% of the population of the European Economic Area (EEA) – which includes the European Union, Iceland, Liechtenstein and Norway – have received two doses, according to EU data, but the pace has slowed in recent months. Take-up in southern European countries is around 80%, but hesitancy has hampered rollout in central and eastern Europe and Russia, leading to outbreaks that could overwhelm healthcare.

Germany, France and the Netherlands are also experiencing a surge in infections, showing the challenge even for governments with high acceptance rates.To be sure, hospitalisations and deaths are much lower than a year ago and big variations by country in use of vaccines and boosters as well as measures like social distancing make it hard to draw conclusions for the whole region.

But a combination of low vaccine take-up in some parts, waning immunity among those inoculated early and complacency about masks and distancing as governments relaxed curbs over the summer are likely to blame, virologists and public health experts told Reuters.

"If there's one thing to learn from this it's not to take your eye off the ball," said Lawrence Young, a virologist at Warwick Medical School in the UK.

The World Health Organization's report for the week to Nov. 7 showed that Europe, including Russia, was the only region to record a rise in cases, up 7%, while other areas reported declines or stable trends.

Similarly, it reported a 10% increase in deaths, while other regions reported declines.The measures coming into force in the Netherlands include restaurants and shops ordered to close early and spectators barred from sporting events.

Germany will reintroduce free COVID-19 tests from Saturday, acting health minister Jens Spahn said on Friday. A draft law in Germany would allow for measures such as compulsory face masks and social distancing in public spaces to continue to be enforced until next March.

Austria's government is likely to decide on Sunday to impose a lockdown on people who are not vaccinated, Chancellor Alexander Schallenberg said on Friday.

Booster shots

Most EU countries are deploying extra shots to the elderly and those with weakened immune systems, but expanding vaccination to more of the population should be a priority to avoid steps like lockdown, scientists said.

"The real urgency is to widen the pool of vaccinated people as much as possible," said Carlo Federico Perno, head of microbiology and immunology diagnostics at Rome's Bambino Gesù Hospital.

The EU's medicines regulator is also evaluating the use of Pfizer and BioNTech's vaccine in 5 to 11-year-olds.

Norway will offer a third COVID-19 vaccine dose to everyone aged 18 and older and will give municipalities the option of using digital "corona passes", the government said on Friday. Norway has so far given a third dose only to those aged 65 and older.

From Dec. 1, Italy will also offer the third dose to people over 40.

"This (outbreak) will probably make the EU look at booster doses and say 'we do need them pronto'," said Michael Head, senior research fellow in global health at the University of Southampton.

Central, Eastern Europe

Still struggling to ramp up shots, central and eastern European governments have had to take drastic action.Latvia, one of the least vaccinated countries in the EU, imposed a four-week lockdown in mid-October. Its parliament voted on Friday to ban lawmakers who refuse vaccination from voting on legislature and participating in discussions.

The Czech Republic, Slovakia and Russia have also tightened restrictions.Vaccines alone are

not the silver bullet to defeat the pandemic in the long term, virologists say.

Several pointed to Israel as an example of good practice: in addition to inoculations, it has reinforced mask wearing and introduced vaccine passports after cases spiked a few months ago. Measures such as spacing, masks and vaccine mandates for indoor venues are essential, said Antonella Viola, professor of immunology at Italy's University of Padua.

The Indian EXPRESS

Mumbai genome sequencing report: 75% samples of Covid patients detected with Delta variant

Out of the total samples taken, four have succumbed to Covid-19 infection. Genome sequencing is an exercise to study the changes in the structure of the virus over time.

By: Express News Service | Mumbai |
Updated: November 13, 2021 1:38:57 am

IN THE fourth genome sequencing report of Brihanmumbai Municipal Corporation (BMC), 75% of the samples have been detected with Delta variant, while only 25% were infected with Delta derivatives.

Out of the total samples taken, four have succumbed to Covid-19 infection.

Genome sequencing is an exercise to study the changes in the structure of the virus over time.

According to a release issued by BMC on Friday, a total of 281 of 345 Covid-19 patients' samples infected from Mumbai were tested in the fourth series batch at the Genome Sequencing Lab in Kasturba Hospital.

In the third genome sequencing, out of the 343 Covid positive samples tested during the third sequencing, 54% had the Delta variant, 34% were Delta derivatives while 12% of them had other variants. In the second survey done in September, 80% of the samples were the Delta strain.

"As seen in the earlier genome sequencing, Delta variants is still the dominating variant. We haven't seen any other new variant which is a good sign," said Suresh Kakani, additional commissioner, BMC.

As per the data provided by BMC, out of the 281 samples, 26 patients (9%) were in the 0-20 age group, 85 (30%) between 21 and 40 years of age, 96 (34%) in the 41-60 age group, 66 (23%) in the 61-80 segment and eight (3%) were 81 years old and above.

Out of 281 patients, four have died who were unvaccinated. All the deceased were above 60 years.

The Indian EXPRESS

Healthcare giant Johnson & Johnson to split into two companies

Johnson & Johnson said it will separate its consumer health business into a new publicly traded company echoing a move by rivals GlaxoSmithKline plc and Pfizer Inc which plan to spin off their joint consumer health business next year.

By: **Reuters** |
November 12, 2021 6:54:39 pm

Johnson & Johnson plans to split into two companies, separating its consumer health division that sells Band-Aids and Baby Powder from its pharmaceuticals and medical devices business in the biggest shake-up in its 135-year history.

The move by the world's largest health-products company comes hot on the heels of similar announcements this week by industrial conglomerates Toshiba and General Electric and underscores how big, diversified corporations are under pressure to simplify.

This has been the case in the healthcare sphere, where the slow-and-steady business of selling consumer products such as moisturisers and shampoos has increasingly diverged from the high-risk, high-reward work of developing and marketing drugs.

Johnson & Johnson said it will separate its consumer health business into a new publicly traded company echoing a move by rivals GlaxoSmithKline plc and Pfizer Inc which plan to spin off their joint consumer health business next year. Germany's Merck KGaA sold its consumer health unit to Procter & Gamble Co in 2018.

"The new Johnson & Johnson and the new consumer health company would each be able to more effectively allocate resources to deliver for patients and consumers, drive growth and unlock significant value," said Joaquin Duato, who is expected to become J&J's chief executive officer in January.

The company is aiming to complete the planned separation in 18 to 24 months, sending its shares up 4% before the bell. Johnson & Johnson will retain its pharmaceuticals and medical device units, which sells its COVID-19 vaccine, drugs such as cancer treatment Darzalex and medical devices. The units are expected to generate revenue of roughly $77 billion in 2021.

The Indian EXPRESS

Europe Covid wrap: Austria announces lockdown on unvaccinated population, nearly 50,000 cases in Germany; and more

Europe is once again seeing a hike in Covid-19 cases, as it accounts for more than half of the seven-day global average.

By: **Express Web Desk** |
Updated: November 12, 2021 7:42:11 pm

The Netherlands government is likely to announce a three-week partial lockdown in the country amid rising Covid-19 cases in Europe.

Europe is once again seeing a hike in Covid-19 cases, as it accounts for more than half of the seven-day global average. Germany, The Netherlands, Norway, Austria are a few countries facing a fresh wave of Covid-19 cases.

As per the World Health Organisation, the deaths related to the coronavirus have increased by 10 per cent in Europe in the past seven days.

The Netherlands

The Netherlands recorded a total of 16,364 positive cases, which is the highest number of cases recorded in the country until now, in the past 24 hours.

Citing government sources, Dutch broadcaster NOS has said that the country will be going under a three-week lockdown which would include the closure of restaurants, bars and nonessential stores by 7 pm. It would also ban fans from attending any sports events.

NOS further reported that the move, which would be announced on Friday, would come into effect from Saturday.

Netherlands Prime Minister Mark Rutte will be addressing the country at a press conference at 1800 GMT, likely announcing the measures. It has been reported that under the new guidelines, people would be urged to work from home but schools, cinema halls and theatres would remain open.

The Netherlands, which has recorded the highest number of cases on Thursday, has vaccinated 85 per cent of its population and had ended lockdown restrictions only at the end of September.

Austria

Austrian chancellor Alexander Schallenberg announced a lockdown on those who are unvaccinated against Covid-19 in the country, starting Monday.

Chancellor Alexander Schallenberg Friday said that the government would hold a call with the governors of the nine provinces of Austria on Sunday to decide the measures to be implemented in order to curb the surge of the Covid-19 virus.

Germany has decided to classify Austria as a high-risk area from Sunday onwards, German Health Minister Jens Spahn said. This would require people travelling from Austria to Germany to enter quarantine unless they have been vaccinated against Covid-19 or recovered from the virus.

As per the authorities, Austria has recorded more than 11,000 cases in the last 24 hours, which is the highest since the beginning of the pandemic. The country has vaccinated 65 per cent of it population, which is the lowest in Western Europe.

Germany

Germany is set to reintroduce free Covid-19 tests, which were started in March this year, as a measure against the rising Coronavirus cases in the country, said acting health minister Jens Spahn.

Spahn said that there was a need for strict measures to fight against the virus and the vaccinated or people recovered from the virus would require a negative Covid-19 certificate to enter public events.

Germany's disease control centre, Robert Koch Institute, has urged citizens to avoid gatherings and reduce contacts.

Germany recorded the highest Covid-19 cases, 50,000, on Thursday and 48,640 on Friday.

Norway

Norway has offered booster shots to everyone above the age of 18 in the country.

Norway's Prime Minister Jonas Gahr Stoere, said on Friday that all unvaccinated health personnel would be required to get tested twice a week and would be required to wear masks.

Health Minister Ingvild Kjerkol said that booster shots would be a better protection against the Covid-19 virus and would decrease the probability of the virus spreading.

More than 87 per cent of the population above the age of 18 has been vaccinated in the country, according to official figures.

Denmark

Declaring Covid-19 "a socially critical disease" again amid an increase in Coronavirus cases, Denmark reintroduced digital passes.

The passes should be used for a month to enter nightclubs, cafes, party buses and indoor restaurants. While the passes were first introduced on July 1, they were removed on September 10, when the cases had reduced in the country.

The Indian EXPRESS

Covid-19 hotspots offer sign of what could be ahead for US

While trends are improving in Florida, Texas and other Southern States that bore the worst of the summer surge, it's clear that delta isn't done with the United States. Covid-19 is moving north and west for the winter as people head indoors, close their windows and breathe stagnant air.

By: AP |
November 12, 2021 12:01:43 pm

A coronavirus testing site in The Villages, Florida, on July 16, 2020, when the United States set a record of 75,687 new coronavirus cases in a single day. (The New York Times/File)

The **contagious delta variant is driving up Covid-19 hospitalisations** in the Mountain West and fuelling disruptive outbreaks in the North, a worrisome sign of what could be ahead this winter in the US.

While trends are improving in Florida, Texas and other Southern States that bore the worst of the summer surge, it's clear that delta isn't done with the United States. Covid-19 is moving north and west for the winter as people head indoors, close their windows and breathe stagnant air.

"We're going to see a lot of outbreaks in unvaccinated people that will result in serious illness, and it will be tragic," said Dr. Donald Milton of the University of Maryland School of Public Health.

In recent days, a Vermont college suspended social gatherings after a spike in cases tied to Halloween parties. Boston officials shut down an elementary school to control an outbreak. Hospitals in New Mexico and Colorado are overwhelmed.

In Michigan, the three-county metro Detroit area is again becoming a hot spot for transmissions, with nearly 400 Covid-19 patients in hospitals. Mask-wearing in Michigan has declined to about 25 per cent of people, according to a combination of surveys tracked by an influential modelling group at the University of Washington.

"Concern over Covid in general is pretty much gone, which is unfortunate," said Dr. Jennifer Morse, medical director at health departments in 20 central and northern Michigan counties. "I feel strange going into a store masked. I'm a minority. It's very different. It's just a really unusual atmosphere right now." New Mexico is running out of intensive care beds despite the state's above-average vaccination rate. Waning immunity may be playing a role. People who were vaccinated early and have not yet received booster shots may be driving up infection numbers, even if they still have some protection from the most dire consequences of the virus.

"Delta and waning immunity — the combination of these two have set us back," said Ali Mokdad, a professor of health metrics sciences at the University of Washington. "This virus is going to stick with us for a long, long time." The delta variant dominates infections across the US, accounting for more than 99 per cent of the samples analyzed.

No State has achieved a high enough vaccination rate, even when combined with infection-induced immunity, to avoid the type of outbreaks happening now, Mokdad said.

In a deviation from national recommendations, Colorado Gov. Jared Polis signed an executive order Thursday that allows any resident 18 or older access to a Covid-19 booster shot, another step to prevent hospitals and health care workers from being overwhelmed by the state's surge in delta infections.

Progress on vaccination continues, yet nearly 60 million Americans age 12 and older remain unvaccinated. That's an improvement since July, when 100 million were unvaccinated, said White House Covid-19 coordinator Jeff Zients.

First shots are averaging about 300,000 per day, and the effort to vaccinate children ages 5 to 11 is off to a strong start, Zients said at a briefing Wednesday.

Virginia Tech's Linsey Marr, a leading researcher on the airborne spread of the coronavirus, predicted the northward spread of the virus in a Twitter post Sept. 15. The virus spreads in the air and can build up in enclosed rooms with poor ventilation. Colder weather means more people are indoors breathing the same air, Marr said.

Imagine that everyone you spend time with is a smoker and you want to breathe as little of their smoke as possible, she said.

"The closer you are to a smoker the more exposure you have to that smoke," Marr said. "And if you're in a poorly ventilated room, the smoke builds up over time." Marr said she and her vaccinated family will use rapid tests before gathering for Christmas to check for infection.

"It's hard to know what's coming next with this virus," Marr said. "We thought we knew, but delta really surprised us. We thought the vaccine would help end this, but things are still dragging on. It's hard to know what's going to happen next."

The Indian EXPRESS

New study reveals a high prevalence of post-Covid fatigue in patients with Type 2 diabetes

The objective of the study was to assess the prevalence of fatigue using the CFQ-11 and handgrip strength (as a surrogate marker for sarcopenia or muscle mass and power) in patients with Type 2 diabetes after Covid-19

By: Express News Service | Chandigarh | November 12, 2021 12:30:36 am

These findings are particularly relevant in view of the increased prevalence of severe diabetes during times of Covid. (Representational)

Post Covid-19 syndrome (PCS) or Long Covid has emerged as a major roadblock in the recovery

of patients infected with SARS-CoV-2. Amidst many symptoms — such as myalgia (muscle pain), headache, cough, and breathlessness — fatigue is the most prevalent and makes a Covid patient severely debilitated.

A recent study, the first of its kind conducted globally, conceived by Dr Anoop Misra, Padma Shri, executive chairman and director, Diabetes and Endocrinology, at Fortis C-DOC, and conducted jointly by Fortis C-DOC, AIIMS, C-NET, N-DOC, and Diabetes Foundation, revealed that Type 2 diabetes patients who had Covid-19 showed significantly more fatigue when compared with patients who did not have the virus.

The results — which were published in the journal, Diabetes and Metabolic Syndrome: Clinical Research and Reviews — show that diabetes complicates the course of Covid-19 and results in excess morbidity and mortality. The presence of diabetes also influences post Covid-19 syndrome via various pathophysiological mechanisms. Further, diabetes poses challenges in the recovery of patients.

The objective of the study was to assess the prevalence of fatigue using the CFQ-11 and handgrip strength (as a surrogate marker for sarcopenia or muscle mass and power) in patients with Type 2 diabetes after Covid-19 and to compare them against patients with diabetes without a history of having contracted the virus. The sample size assessed was 108 Type 2 diabetes patients.

The methodology followed was to assess patients with Type 2 diabetes who came to the OPD at Fortis C-DOC Hospital for Diabetes and Allied Sciences, New Delhi. Patients studied included 52 Type 2 diabetes patients who had suffered from Covid with mild to moderate severity; 56 Type 2 diabetes patients who did not suffer from Covid. Both groups were matched for age, duration of diabetes, BMI, TSH, serum albumin, and vitamin D levels. Matching was done for common factors which may cause fatigue; 25(OH)D, serum albumin, and TSH levels. The average time of presentation of patients post-Covid was 92 (range 32-262) days. Symptoms were scored using Chalder Fatigue Scale (reported as fatigue score, FS) and handgrip strength (in kg) was recorded by Jamar Hydraulic Hand Dynamometer.

Key findings

Type 2 diabetes patients who had Covid-19 showed significantly more fatigue when compared with patients who did not have the virus but both groups had comparable handgrip strength.

Type 2 diabetes with previous Covid-19 infection and who had fatigue score > 4 have (high fatigue level) had significant higher inflammation markers during acute illness, and post Covid-19, had increased postprandial blood glucose levels, lost more weight, had reduced physical activity and showed significantly lower handgrip strength as compared to those with Fatigue score 4 after acute infection would require careful attention to nutrition, glycemic control, and graduated physical activity protocol

These findings are particularly relevant in view of the increased prevalence of severe diabetes during times of Covid.

Dr Anoop Misra said, "Fatigue is a predominant and very debilitating factor, present afterward in both hospitalised and non-hospitalised Covid patients. Fatigue and associated symptoms decrease quality of life and interfere with normal working capacity. The study shows how diabetes complicates the course of Covid-19, influences post-Covid syndromes or Long Covid via various pathophysiological mechanisms. In addition, diabetes poses challenges in the recovery of patients. It is imperative, therefore, for chronic diabetic patients to follow a healthy lifestyle,

adhere to treatment guidelines and go for regular health checks."

He added that management of diabetes should be sustained and more stringent during a pandemic. Covid-19 fatigue should be addressed through a multidisciplinary approach, which includes the treating clinician, psychological counselor, nutritionist, and physical therapy expert. "Blood glucose and blood pressure should be optimal and more aggressive glycemic management is required. Special care must be taken regarding nutrition and protein and vitamin supplements should be used as required. Exercise and physiotherapy should be started early after Covid-19 as it may benefit not only fatigue but cardiovascular and pulmonary health and mental well-being of the patient," said Dr Misra.

The Indian EXPRESS

Why rising Covid cases in Europe are a reason for worry in Kerala

Europe saw a six per cent increase in new infections last week compared with the week before, and a corresponding 12 per cent rise in deaths.

Written by **Vishnu Varma** | Kochi | Updated: November 11, 2021 11:16:02 pm

The rising curve of Covid-19 infections in European countries, especially among fully vaccinated people there, can be worrying for a state like Kerala, where breakthrough infections are spiking each day, said a member of the state's expert panel.

Germany, whose 67.2 per cent population is fully inoculated, reported over 50,000 cases Thursday, the highest since the beginning of the pandemic. UK, one of the worst-affected countries in Europe in terms of Covid fatalities, has also been reporting in excess of 35,000 cases this week.

The few students who turned up say prayers at a government school in Kochi, last week. The trend of increasing breakthrough infections each week in Kerala holds on. (Photo: AP)

Europe saw a six per cent increase in new infections last week compared with the week before, and a corresponding 12 per cent rise in deaths. The WHO said Europe was at a 'critical point' and could be seeing a spurt in cases due to 'uneven vaccine coverage' and premature relaxation of restrictions.

Dr Anish TS, a member of the expert committee advising the Kerala government on Covid-19, said, "It is worrying for us because Kerala is more epidemiologically similar to the European countries than other Indian states. What's happening there could have similar results here. Why (cases are rising) in Europe is an important question. Is it because the effects of the vaccines are waning? Or since it's winter there right now, there will be more closed interactions. It could be because of such social factors, we still don't know it yet. So it's certainly alarming for us."

But the last seroprevalence survey conducted in Kerala, which pointed to antibodies among 82 per cent of the population, offers hope, he said. "It's clear that we cannot drop our guard right

now. But we hope to tide over (any possible) wave," he said.

In Kerala, 95.3 per cent of the eligible population have got the first dose and 56.1 per cent both doses of the Covid vaccine. In terms of vaccination per million population in the country, Kerala occupies the top spot, claimed health minister Veena George.

But the trend of increasing breakthrough infections each week in the state holds on. On Thursday, a whopping 47 per cent of the new cases were found among those who had taken both doses of the vaccine. Another 20 per cent had taken the first dose and 31 per cent were reported to be unvaccinated. However, declining hospitalisation and demand for oxygen and ICU beds in the state suggests that vaccines are proving to protect those infected from serious repercussions.

The health department said that of the 74,976 cases reported between Nov 3 and Nov 9, only 1.7 per cent of them needed oxygen beds and 1.4 per cent ICU beds.

"Almost all the breakthrough infections are not very severe. Comparatively, death rates are low. Such data is very consistent with that from European countries. In other Indian states, breakthrough infections are perhaps not being captured, it may be very mild so that the (health) system doesn't capture it. That may be one reason. The second reason is natural infections are quite high in other states. So it will be a sterilising kind of immunity where there will be no infections at all. Those who have been infected with the Delta variant of the virus once may not get infected again at all," said Dr Anish.

"If you look at the pattern of sterilising immunity, the prevalence of it is quite low in Kerala. The sero-prevalence study has data on that. In Kerala, more people have immunity via the vaccine, so they are more prone to breakthrough infections."

The Indian EXPRESS

Moderna Covid-19 vaccine patent dispute headed to court, US NIH Head says

In a story first reported by the New York Times on Tuesday, Moderna excluded three NIH scientists as co-inventors of a central patent for the company's multibillion-dollar Covid-19 vaccine in its application filed in July.

November 11, 2021 10:25:44 am

Vials of the Moderna Covid-19 vaccine. (Reuters)

US National Institutes of Health scientists played "a major role" in developing Moderna Inc's Covid-19 vaccine and the agency intends to defend its claim as co-owner of patents on the shot, NIH Director Dr. Francis Collins told Reuters on Wednesday.

In a story first reported by the New York Times on Tuesday, Moderna excluded three NIH scientists as co-inventors of a central patent for the company's multibillion-dollar Covid-19 vaccine in its application filed in July.

"I think Moderna has made a serious mistake here in not providing the kind of co-inventorship credit to people who played a major role in the development of the vaccine that they're now making a fair amount of money off of," Collins said in an interview ahead of the Reuters Total

Health conference, which will run virtually from Nov. 15-18.

Moderna expects 2021 sales of $15 billion to $18 billion from the Covid-19 vaccine – its first and only commercial product – and up to $22 billion next year.

In a statement emailed to Reuters, Moderna acknowledged that scientists at NIH's National Institute of Allergy and Infectious Diseases (NIAID) played a "substantial role" in developing Moderna's messenger RNA (mRNA) vaccine, but the company said it disagrees with the agency's patent claims.

Collins said the NIH has been trying to resolve the patent conflict with Moderna amicably for some time and has failed.

"But we are not done. Clearly this is something that legal authorities are going to have to figure out," he said.

NIH has asserted that three of its scientists – Dr. John Mascola, Dr. Barney Graham and Dr. Kizzmekia Corbett – helped design the genetic sequence used in Moderna's vaccine and should be named on the patent application. Graham has since retired and Corbett is now working at Harvard.

"It's not a good idea to file a patent when you leave out important inventors, and so this is going to get sorted as people look harder at this," Collins told Reuters.

"I did not expect that to be the outcome from what had been a very friendly, collaborative effort between scientists at NIH and Moderna over many years."

In its statement, Moderna said, "We do not agree that NIAID scientists co-invented claims to the mRNA-1273 sequence itself. Only Moderna's scientists came up with the sequence for the mRNA used in our vaccine."

Moderna said the company has acknowledged NIH scientists in other patent applications, such as those related to dosing. But for the core patent, Moderna is only required to list Moderna scientists as inventors of the sequence under the strict rules of U.S. patent law, it said.

"We are grateful for our collaboration with NIH scientists, value their contributions, and remain focused on working together to help patients," the company added.

The Indian EXPRESS

Govt to identify those yet to be jabbed in house-to-house drive

A team of frontline workers would also be formed to ensure 100 per cent vaccination, said an order issued by the state health and family welfare department.

By: Express News Service | Kolkata | November 11, 2021 5:32:17 am

The state government will soon begin a house-to-house campaign to identify those who are still yet to be vaccinated against Covid-19, in a bid to scale up its inoculation drive. A team of frontline workers would also be formed to ensure 100 per cent vaccination, said an order issued by the state health and family welfare department. The state has till date administered over 7.4 crore vaccine doses (including first and second doses) cumulatively.

"To ramp up the vaccination programme further, a house-to-house campaign may be undertaken to identify the beneficiaries who have not yet taken vaccine dose [s]. This can be done by forming a team of frontline workers," read an order by the health department undersigned by Dr. Saumitra Mohan, IAS Mission

Director (NHM) & Secretary Government of West Bengal. The state health department has issued instructions in this regard to all district administrations and district health officers. As per the plan, a special team will visit people and register all such beneficiaries, raise awareness and encourage people to get vaccinated.

"There are several bed-ridden people who have missed out vaccination since they are physically not capable of coming to the vaccination centres.This initiative will help in reaching the ultimate goal of 100 percent vaccination," said a senior health official.

The Indian EXPRESS

The Great Resignation: For many in the West, quitting their job is the thing to do. Why?

A record 4.3 million people resigned in August, up 242,000 from July, according to the US Bureau of Labor Statistics (BLS).

Written by Shiny Varghese | New Delhi |
Updated: November 12, 2021 11:38:51 am

Nearly 14 million have exited the labour market in OECD countries, and are classified as "not working" and "not looking for work". (Representational Image)

Over the past few months, as the pandemic has appeared to have run its course and businesses have started to develop greater confidence to return to pre-2020 ways of working, a new phenomenon has swept through the United States and some countries in Europe.

Unexpectedly large numbers of people are embracing the credo of "antiwork", and walking out of their jobs. A record 4.3 million people resigned in August, up 242,000 from July, according to the US Bureau of Labor Statistics (BLS).

And just a year after the US saw the highest rate of unemployment since the Great Depression, the quit rate — number of quits in a month as a percentage of total employment— rose to a series high of 2.9 per cent in the bureau's Job Openings and Labor Turnover Summary.

The American psychologist Anthony Klotz has called it the "Great Resignation" — a call to remap priorities in the work-life equation.

Lessons Covid taught

Living through and surviving pandemic lockdowns nudged many to see "work-free" living as a viable option. Grievances about low pay, unrealistic deadlines, and bad bosses bubbled up from subconscious depths to feed the impulse. Over the last year, the Reddit forum "r/antiwork", which has been in existence since 2013, gained over 920,000 followers and saw more than 1,400 daily posts on average.

Who's quitting and why

A report in The Washington Post last month noted that the record quit numbers of August "expands to 20 million if measured back to April".

While those opting out of work include, prominently, employees in the retail and hospitality sectors, many were willing to switch jobs or to re-evaluate their options, the report

said. The BLS summary said that in August, "quits increased in accommodation and food services (+157,000); wholesale trade (+26,000); and state and local government education (+25,000)".

The quit trend was seen elsewhere too, The Post report said. Nearly 14 million have exited the labour market in OECD countries, and are classified as "not working" and "not looking for work". Many countries in Central and Eastern Europe, and in Germany have recorded a fall in the skilled labour force; this, however, could be due to stronger social safety nets, the report said.

Sociologist Amrita Datta, visiting assistant professor, Krea University and Marie Sklodowska Curie Fellow at the Department of Sociology at the University of Siegen in Germany, said, "The major portion of the workforce quitting their jobs in the US are mid-ranking professionals. This also means that these workers have market values beyond their existing employers…, and the experience and contacts to bag better job opportunities or choose start-ups — something that young professionals lack and senior-level workers cannot go for because their time's up."

She had personally noticed a mushrooming of start-ups in Berlin, and many professionals in their late 30s and early 40s were joining them from India and China, Dr Datta said.

No rush to resign in India

The job market in India is obviously very different from that in the West, and no general analysis can be sufficient.

Speaking of white-collar urban Indians, Pankaj Kapoor, Managing Director of the real estate data analytics company Liases Foras, said the absence of social security and unemployment benefits meant the luxury of walking out of jobs was not available to most in India.

But interesting post-pandemic trends are visible, Kapoor said: "Remote working has made it possible for corporates and employees to have flexible work models. If in the past companies had planned for opening offices in Tier II and III towns, today it is becoming a reality because the pandemic has shifted our spatial economy. There are diffusions now with higher migrations and jobs are moving to people, more than the other way around."

Indians, Kapoor said, "have not been planned and productive workers largely because labour costs are low and population resources are high. Besides, we work 365 days, unlike developed countries where climate dictates work hours."

Anuj Puri, chairman of the realty company ANAROCK Group, said a churn was visible in the IT and ITeS sectors with many professionals switching jobs. "Several start-ups have become unicorns and many are hiring in bulk and are ready to pay significantly higher," Puri said.

Also, work-from-home has triggered changes in the demand structure in the realty market. "There has been a major uptick in the demand for larger homes as people seek to accommodate home offices and e-schooling in their properties. This new dynamic prompted developers to offer new size configurations such as 1.5, 2.5 and 3.5 BHKs," Puri said.

Out of the exhaustion and trauma of Covid could be emerging both predicted and unpredictable new ways of working and looking at work.

The Indian EXPRESS

Childhood cancer in India: From symptoms to role of nutrition, all you need to know

Approximately 50,000 children are diagnosed with cancer every year in India; that's about one child every 11 minutes

Written by Shreya Agrawal | Itarsi |
November 10, 2021 6:20:12 pm

Cancer is one of the most dreaded diseases, with millions of people succumbing to it every year worldwide. But, the diagnosis becomes much more worrying when the patient is a child. In a grave prediction, the Lancet Oncology Commission in 2020 estimated that in the next 30 years, around 13.7 million children will be diagnosed with cancer and a staggering 11.1 million children would succumb to it if adequate attention to health care services and cancer treatment is not paid.

What makes this prediction much more worrying is that over 9 million deaths will take place in low and middle-income countries like India. Delayed diagnosis and inaccessibility to holistic and supportive care are the key reasons. Moreover, according to the research, 80 per cent of children abandon treatment due to financial constraints, alternative medicine, or misinformation that cancer is incurable.

Childhood cancer in India

Approximately 50,000 children are diagnosed with cancer every year in India; that's about one child every 11 minutes. Dr Sukriti Gupta, consultant, paediatric hemato oncology, Action Cancer Hospital said, "Childhood cancer accounts for around 2-4 per cent of overall cancer in Indian population." In countries like India, only an estimated 15-45 per cent of children are cured of cancer as compared to more than 80 per cent in high-income countries.

"Major problem lies in the access to proper diagnostic and treatment facilities. There is a huge discrepancy in detection as well as treatment. At least in all childhood blood cancers, the cure rate is in excess of 80-90 per cent in developed countries. Whereas in India, the treatment despite being curable, is not affordable for the majority of children. Very few patients take the entire treatment, and this is the major reason for the lower cure rat," Dr Sarita Rani Jaiswal, consultant, department of bone marrow transplantation and hematology, Dharamshila Narayana Superspeciality Hospital said.

Possible signs and symptoms of cancer in children

Listing a few common symptoms of childhood cancer, Dr Gupta said, "The initial symptoms may include fever, progressive drop in haemoglobin, petechial rashes etc."

"An ongoing pain in one area of the body or bone with or without unusual lump or swelling especially in the abdomen, neck, chest, pelvis, or armpits, easy bruising or bleeding or sudden vision changes can also be the presenting symptoms," Dr Jaiswal added.

To lower the risk, Dr Gupta emphasised the need for early detection of cancer. "Parents should seek medical care even when minor symptoms occur or any unusual symptom presents. These apparent symptoms may include pallor in child, any unusual swelling, rashes, loss of appetite or weight loss etc."

Most prevalent childhood cancers

"Most common amongst childhood cancers are blood cancers. Among them acute lymphoblastic leukaemia (ALL) is most common, followed by high-grade lymphoma and myeloid leukaemia, which can be found in certain circumstances with specific genetic abnormalities," Dr Jaiswal said.

Dr Niti Raizada, Director, Medical Oncology and Hemato-Oncology, Fortis Hospitals, Bangalore explained that the type of cancer depends largely on age and history. "In infants or children

who are less than a year old, neuroblastoma happens to be one of the most common cancers. In children who are between the age of one and four, leukaemias are very common. Other solid cancers include bone cancer, eye cancer, liver cancer and kidney cancers. The age group in which cancers are most common is when the child is growing up. Between 9 to 16 years of age, bone cancers are very common."

Childhood cancer and role of nutrition

Experts have pointed out that proper nutrition "helps a child to tolerate chemotherapy and its effects while malnutrition can pose additional risks as it adds more to the weakness".

As per the Indian Journal of Cancer, 40 per cent of children with cancer in India are already malnourished at diagnosis. It, further, highlights that "children with cancer are at a high risk of becoming malnourished even if they may be well-nourished at the time of diagnosis".

Therefore, it becomes significant to address nutrition in children for better outcomes during cancer treatment. And bridging this gap between cancer treatment and nutrition, with a focus on underprivileged children, is the Mumbai-based non-profit organisation, Cuddles Foundation.

"This is done through formal partnerships with government and charitable cancer hospitals. Currently covering 35 hospitals in 12 states around India, we are strategically present at key nodes of India's vast geography," Purnota Dutta Bahl, founder and CEO, Cuddles Foundation told *indianexpress.com*.

The Foundation's FoodHeals program is currently covering 35 government and charity cancer hospitals in 12 states around India. It is active in hospitals like Tata Memorial Hospital (Mumbai), Sher-i-Kashmir Institute of Medical Sciences (Srinagar), AIIMS (Delhi), Christian Medical College (Vellore), NRS Hospital (Kolkata), Dr B Baruah Cancer Institute (Guwahati), amongst others.

Impact of the nutrition program

During the Covid-19 pandemic, the foundation provided nutrition counselling to more than 6,000 patients. "We found that despite therapies like chemotherapy and radiation, 80 per cent of patients improved or maintained their nutritional status. Also, 94 per cent of patients we counselled returned for a second visit or continued treatment," Bahl said.

She added that "the average BMI z-score between first and last visits improved by 16 per cent, indicating an overall improvement in health".

The way forward

According to Dr Jaiswal, the way to lower the risk of childhood leukaemia, if it is not genetically predisposed, is to allow normal growth and development of the child in the natural environment. "If the child mingles around with other children, he/she will be able to build strong immunity and will be less susceptible to develop either cancer or allergy. So, apart from the nutrition, it's very important to have a normal environment for the growth of the child which has been severely compromised in the past few years due to pain Covid 19 pandemic."

Bahl added, "Unless we invest and strategically collaborate to ensure that children have access to timely diagnosis, holistic and supportive care including nutrition through their treatment, and support families so they can complete their child's treatment, we won't be able to improve our cure rates."

The Indian EXPRESS

Allow booster, vaccinate kids and cut dosage gap: Kerala to Centre

Kerala Health Minister Veena George cited the state's significant NRI population to argue why Kerala wants the existing gap of 84 days between the two doses to be reduced.

By: Express News Service | New Delhi |
Updated: November 13, 2021 11:30:49 am

Kerala has requested the Centre to expedite key issues related to Covid-19 vaccination, including immunisation of children, providing booster doses to the co-morbid population and reducing the gap of the second dose of Covishield.

Speaking at The Indian Express's Idea Exchange session, Kerala Health Minister Veena George said, "Regarding vaccination of children, I myself have written to Union Health Minister Mansukh Mandaviyaji to take a quick decision on vaccinating our children. And also about reducing the period between the first and second dose (of Covishield)."

On May 13, the Centre accepted the Covid Working Group's recommendation and extended the gap between the first and second doses of Covishield to 12-16 weeks, or after 84 days, from the earlier 6-8 weeks.

George cited the state's significant NRI population to argue why Kerala wants the existing gap of 84 days between the two doses to be reduced.

"Now it is 84 days. But we have asked the Central government to reduce the period because, as you know, Kerala is a state where we have many NRIs. Many of our people work abroad and if they come here and take the first dose of vaccine, it will be difficult for them to stay for 84 days to take the second dose. So we have asked for the gap to be reduced. I have received a letter from the Union Health Minister that the Central government will consider it," George said.

On June 7, the Centre had made an exception in the 84-day rule for persons undertaking international travel for education or employment opportunities with the onus on states to check the genuineness of the purpose of travel.

On the need for a booster dose of the Covid vaccine, especially considering the prevalence of non-communicable diseases in close to 30 per cent of the state's population, George said, "I have already written a letter to the Union (Health) Minister to have a quick decision on the booster dose also. I think the Central government will be considering it. My principal secretary has taken up the issue with the secretary, Union Health Ministry. And I have written to the minister. We are awaiting their decision."

George, however, underlined that a decision on the booster dose will be based on expert opinion. "We have more number of people with lifestyle diseases — diabetes, hypertension, etc. We have analysed Covid-19 deaths and it was more in people with these comorbidities. It is good if they get a booster dose. This is why we have decided to request the Central government to take a decision on giving booster doses. Again, it is not our decision, the experts have to decide… And the Centre will have to take an opinion from experts and I hope a good decision will be taken soon," George said.

At 70,251, Kerala currently has the highest number of active Covid-19 cases in the country. It is also reporting the highest number of Covid-19 deaths in the country. However, George said, the state's case fatality rate — the share of deaths among those diagnosed with the infection — still continues to be lower than the

national average, and that the health systems were not overwhelmed even during the peak of the second wave. Kerala's case fatality rate stands at 0.6% against the national average of 1.3%.

"The state's geography and population can be compared to that of some European countries. It is like a large city. If you look at the state and its population density — it is double the national average. We also have a high proportion of senior citizens. We also have a very high percentage of people with lifestyle diseases. These are our challenges. But when you analyse our work and strategy, there was not a single case where a person died because of not getting oxygen or without hospital support," George said.

"Our strategy has been to keep the number of patients below the hospital capacity. At this stage, where every day we are reporting 6,000-7,000 cases, if we look at hospital occupancy or ICU occupancy, it is very less. Our hospitals have never operated in pressure mode. The progression of the second wave in the state was not like a tsunami," she said.

The Indian EXPRESS

Moderna seeks EU authorization for Covid-19 vaccine in young kids

The vaccine was authorized for use in teens aged 12 to 17 years by the European Union in July, but several countries including Sweden have paused its use for people aged 30 and younger due to rare heart-related side-effects.

By: Reuters |
November 9, 2021 8:29:43 pm

Moderna Inc on Tuesday sought conditional marketing authorization with the European Medicines Agency for use of its Covid-19 vaccine in children in the age-group of 6-11 years.

The vaccine was authorized for use in teens aged 12 to 17 years by the European Union in July, but several countries including Sweden have paused its use for people aged 30 and younger due to rare heart-related side-effects.

The drugmaker sought US authorization of its vaccine for use in teens in June and is awaiting a decision by the US Food and Drug Administration.

"This marks our first submission for the use of our vaccine in this age group," said Stéphane Bancel, Chief Executive of Moderna, adding the company will submit the data to other regulatory agencies around the world.

Continued from page no.1

96 countries have agreed to mutual acceptance of Covid vaccination certificates with India: Minister

… "At present, 96 countries have agreed to mutual recognition of vaccination certificates and also those who recognise Indian vaccination certificates of travellers fully vaccinated with Covishield/WHO approved/nationally approved Covid vaccines," Mandaviya stated.

Consecutively, persons travelling from these countries are provided certain relaxations as enunciated in the Union Health Ministry's guidelines on international arrivals issued on October 20, 2021.

For those who wish to travel abroad, the international travel vaccination certificate can also be downloaded from the CoWIN portal, the ministry said.

Among the 96 countries are Canada, the US, the UK, France, Germany, Belgium, Ireland, Netherlands, Spain, Bangladesh, Mali, Ghana, Sierra Leone, Angola, Nigeria, Benin, Chad, Hungary, Serbia, Poland, Slovak Republic, Slovenia, Croatia, Bulgaria, Turkey, Greece, Finland, Estonia, Romania, Moldova, Albania, Czech Republic, Switzerland, Liechtenstein, Sweden, Austria, Montenegro, and Iceland.

Eswatini, Rwanda, Zimbabwe, Uganda, Malawi, Botswana, Namibia, Kyrgyz Republic, Belarus, Armenia, Ukraine, Azerbaijan, Kazakhstan, Russia, Georgia, Andorra, Kuwait, Oman, the UAE, Bahrain, Qatar, Maldives, Comoros, Sri Lanka, Mauritius, Peru, Jamaica, the Bahamas, and Brazil have also agreed to mutual recognition of COVID-19 vaccination certificates with India.

Guyana, Antigua & Barbuda, Mexico, Panama, Costa Rica, Nicaragua, Argentina, Uruguay, Paraguay, Columbia, Trinidad & Tobago, Commonwealth of Dominica, Guatemala, El Salvador, Honduras, Dominican Republic, Haiti, Nepal, Iran, Lebanon, State of Palestine, Syria, South Sudan, Tunisia, Sudan, Egypt, Australia, Mongolia, and Philippines are the other countries.

"The Ministry of Health along with the Ministry of External Affairs is in continuous communication with all countries for mutual recognition of vaccine certificates, and WHO and nationally approved vaccines to facilitate hassle-free international travel across countries," the minister said.

"The Union government's commitment to accelerate the pace and expanding the scope of COVID-19 vaccination throughout the country has resulted in crossing the 100 crore milestone in administration of doses on October 21, 2021," he stated.

The cumulative vaccine doses administered in the country so far under the nationwide COVID-19 vaccination drive has exceeded 109.08 crore.

The Indian EXPRESS

Widespread coronavirus infection found in Iowa deer, new study says

Up to 80% of deer sampled from April 2020 through January 2021 in the state were infected, the study indicated.

By: New York Times |
Updated: November 9, 2021 11:03:30 am

White-tailed deer (Source: Wikimedia Commons)

Written by Andrew Jacobs

A new study of hundreds of white-tailed deer infected with the coronavirus in Iowa has found that the animals probably are contracting the virus from humans and then rapidly spreading it among one another, according to researchers.

Up to 80% of deer sampled from April 2020 through January 2021 in the state were infected, the study indicated.

Scientists said the findings pose worrisome implications for the spread of the coronavirus, although they were not able to identify how the deer might have contracted the virus from humans. There is no evidence that deer have passed the virus back to humans.

Researchers and outside experts characterized the study's findings as a troubling development in the course of the pandemic. Widespread infection among North America's most ubiquitous game species could make eradicating the pathogen even more difficult, especially if they became a reservoir for mutations that eventually spilled back over to humans.

The study has not been published in a peer-reviewed science journal yet, but its authors at Penn State University and wildlife officials in Iowa found the results so disturbing that they are alerting deer hunters and others who handle deer to take precautions to avoid transmission.

Earlier this year, a multistate survey of white-tailed deer by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service turned up antibodies for the virus among less than half the deer in four states, but that study confirmed exposure, not infection. (Antibodies could mean the deer fought off infection.)

This new analysis — conducted by examining the lymph nodes of samples from roadkill and from those felled by hunters — showed active infections, the researchers said. The veterinary microbiologists who led the Penn State study, Suresh Kuchipudi and Vivek Kapur, said they were not prepared to find such widespread infection.

"It was effectively showing up in all parts of the state," said Kuchipudi. "We were dumbfounded."

Evidence of transmission from people, the scientists said, was found in the genomic sequencing of the samples collected over months that reflected the virus lineages circulating among humans.

"There is no reason to believe that the same thing isn't happening in other states where deer are present," Kapur said.

Previous studies have hinted at such a possibility because a number of other animals are susceptible to infection with SARS-CoV-2, the virus that causes COVID-19 in humans. They include ferrets and primates that have been intentionally infected in lab experiments, zoo animals that caught the virus from their handlers and captive mink that were sickened after being exposed to the pathogen by farmworkers.

In the case of mink, the coronavirus has already demonstrated an ability to sicken animals infected by humans, and last year, **Denmark slaughtered its entire population of 17 million farmed mink** after scientists discovered they could pass the virus back to people. The virus, they found, had also picked up mutations along the way, but officials said none were especially worrisome.

If the virus were to become endemic in wild animals like deer, it could evolve over time to become more virulent and then infect people with a new strain capable of evading the current crop of vaccines.

The findings were verified last week by federal scientists at the National Veterinary Services Laboratories, according to a spokesperson.

Scientists unaffiliated with the study who reviewed the findings said they were stunned but not entirely surprised.

"If deer can transmit the virus to humans, it's a game-changer," said Tony Goldberg, a veterinarian at the University of Wisconsin-

Madison who studies the evolution of infectious diseases as they jump between animals and people. "To have a wildlife species become a reservoir after transmission from humans is very rare and unlucky, as if we needed more bad luck."

The Penn State researchers have been working with the Iowa Department of Natural Resources, which already conducts surveillance on chronic wasting disease, a fatal neurological illness among white-tailed deer. The first positive test results showed up in September 2020 — in two deer at different ends of the state. Between late November and early January, as the pandemic was surging in humans across Iowa, 80% of the deer specimens tested positive for the virus.

By then, the researchers had tested only 300 of the 5,000 lymph nodes available to them, but the evidence was overwhelming.

Such a high rate of infection, Kuchipudi said, was effectively 50 times greater than its prevalence among Iowa's human residents during the peak of the pandemic.

What they found as they probed deeper was even more astounding. Using tests to decode the genomic makeup of each viral sample, they found similar patterns between the emergence of mutations and variants in the state's deer population and those infecting people.

Researchers said that offered stronger proof of human-to-deer transmission as well as evidence that deer were then spreading the virus to one another at a rapid clip. Mapping the location of each sample also suggested that the infections were occurring simultaneously across the state as hunting season ramped up. The study's authors say it is unclear whether the deer were sickened by the infection.

How the virus passes from people to deer, however, is not entirely clear.

Rachel Ruden, Iowa's state wildlife veterinarian and an author of the study, said there were plenty of opportunities for transmission given that 445,000 deer roam the state.

The virus can spread when people feed deer in their backyard, through sewage discharges or maybe when an animal licks a splotch of chewing tobacco left behind by an infected hunter. "Perhaps it doesn't take much of a loading dose to get deer infected," she said. "But either way, all of this is a striking example that we're all in this pandemic together."

Despite their concerns that the country's 38 million white-tailed deer could become a lasting reservoir for the coronavirus, experts say such a scenario does not mean all hope is lost in the battle to conquer the pandemic.

A dangerous mutation that one day finds its way from deer to people could be tackled with a booster shot — not unlike how vaccines for the seasonal flu are developed each year. A coronavirus vaccine for deer is also a possibility — scientists have already created them for zoo animals — but the practicality of inoculating millions of free-roaming ungulates would be daunting, to say the least.

In the meantime, several states have advised deer hunters to take precautions when dealing with white-tailed deer: wear rubber gloves and perhaps a mask when field dressing and processing; sanitize hands and instruments after dressing; and bag carcass remains before disposing in trash. Health officials say eating cooked

The Indian EXPRESS

UK to add Covaxin to approved list from November 22

The move follows the World Health Organisation's (WHO) Emergency Use Listing for Covaxin, which is the second most used formulation in India.

By: Reuters | London |
Updated: November 9, 2021 2:03:23 pm

The UK government has said that India's Covaxin will be added to its list of approved COVID-19 vaccines for international travellers from November 22, meaning that those inoculated with the Bharat Biotech-manufactured jab will not have to self-isolate after arrival in England.

The move follows the World Health Organisation's (WHO) Emergency Use Listing for Covaxin, which is the second most used formulation in India.

Covishield, the India-manufactured Oxford-AstraZeneca COVID-19 vaccine, was added to the UK's approved list last month.

"More good news for Indian travellers to the UK. From 22 November travellers fully vaccinated with a COVID19 vaccine recognised by WHO for Emergency Use Listing, including Covaxin, will not have to self-isolate; so joining those fully vaccinated with Covishield," Alex Ellis, British High Commissioner to India, said on Twitter on Monday.

The changes will come into effect at 4 am on November 22.

Besides Covaxin, China's Sinovac and Sinopharm, both on the WHO Emergency Use Listing, will be recognised by the UK government as approved vaccines for inbound travel, benefitting fully vaccinated people from the United Arab Emirates and Malaysia. These fully vaccinated passengers will not be required to take a pre-departure test, day-8 test or self-isolate upon arrival.

"As we continue to recover from the pandemic and expand our recognition of international vaccines, today's announcements mark the next step in our restart of international travel," said UK Transport Secretary Grant Shapps.

"The red list and quarantine system remain vital in protecting our borders and as we've said, we will not hesitate to take action by adding countries to the red list if necessary," UK Health Secretary Sajid Javid said.

The UK government has also simplified the travel rules for all under-18s coming to England. They will now be treated as fully vaccinated at the border and will be exempt from self-isolation requirements on arrival, day-8 testing and pre-departure testing. They will only be required to take one post-arrival test and a confirmatory free PCR test if they test positive.

The Indian EXPRESS

Pfizer, AstraZeneca Covid vaccines generate more antibodies than natural infection: Study

In the study, 32 non-hospitalised COVID-19 positive Canadian adults were recruited 14 to 21 days after being diagnosed through PCR testing in 2020, before the Beta, Delta and Gamma variants emerged.

By: PTI | Toronto |
November 8, 2021 9:38:21 pm

A team led by researchers at the University of Montreal in Canada found that these antibodies were also effective against the Delta variant. (File photo)

People who receive the Pfizer or AstraZeneca COVID-19 vaccine have antibody levels significantly higher than those infected with the SARS-CoV-2 virus, according to a study published in Scientific Reports journal on Monday.

A team led by researchers at the University of Montreal in Canada found that these antibodies were also effective against the Delta variant.

In the study, 32 non-hospitalised COVID-19 positive Canadian adults were recruited 14 to 21 days after being diagnosed through PCR testing in 2020, before the Beta, Delta and Gamma variants emerged.

"Everyone who had been infected produced antibodies, but older people produced more than adults under 50 years of age," said Jean-Francois Masson, a professor at the University of Montreal.

"In addition, antibodies were still present in their bloodstream 16 weeks after their diagnosis," Masson said.

Antibodies produced after an infection by the original viral strain also reacted to SARS-CoV-2 variants that emerged in subsequent waves, namely Beta, Delta and Gamma, with a reduction of 30 to 50 per cent in reactivity.

"But the result that surprised us the most was that antibodies produced by naturally infected individuals 50 and older provided a greater degree of protection than adults below 50," said Joelle Pelletier, a professor at the University of Montreal.

"This was determined by measuring the antibodies' capacity to inhibit the interaction of the Delta variant's spike protein with the ACE-2 receptor in human cells, which is how we become infected," he added.

The researchers, however, did not observe the same phenomenon with the other variants.

They noted that when someone who has had a mild case of COVID is vaccinated, the antibody level in their blood doubles compared to an unvaccinated person who has been infected by the virus.

Their antibodies are also better able to prevent spike-ACE-2 interaction, according to the researchers.

"But what's even more interesting is that we have samples from an individual younger than 49 whose infection didn't produce antibodies inhibiting spike-ACE-2 interaction, unlike vaccination," said Masson.

"This suggests that vaccination increases protection against the Delta variant among people previously infected by the native strain," Masson added.

The researchers believe more research should be conducted to determine the best combination for maintaining the most effective level of antibodies reactive to all variants of the virus.

The Indian EXPRESS

Molnupiravir and Paxlovid: Two new oral drugs and the treatment of Covid-19

The UK clearance to molnupiravir, and the promise shown by Pfizer's drug, could pave the way for more effective management of Covid-19.

Written by Kaunain Sheriff M , Anuradha Mascarenhas | New Delhi, Pune |
Updated: November 9, 2021 3:05:26 pm

No orally administered drug had got regulatory clearance in any country until molnupiravir.

On Thursday, the UK drug regulator announced that it has approved the first oral antiviral for treatment of Covid-19. The drug, **molnupiravir**, has been developed by Merck and Ridgeback. "Molnupiravir has been authorised for use in people who have mild to moderate COVID-19 and at least one risk factor for developing severe illness," the UK's Medicines and Healthcare products Regulatory Agency said.

The following day, Pfizer announced trial results for its investigational Covid-19 oral antiviral candidate, Paxlovid, saying it significantly reduced hospitalisation and death.

In India, molnupiravir is undergoing trials. In the US, it is being evaluated by the Food and Drug Administration (FDA).

Why are these developments significant?

While several drugs have been part of treatment protocols through the pandemic, no orally administered drug had got regulatory clearance in any country until molnupiravir.

Other treatments had not given the results hoped for. The most important of these were four drugs or drug combinations in Solidarity — the world's largest ever multi-clinical trials — conducted by the World Health Organization (WHO) last year.

The trials were on remdesivir, hydroxychloroquine, ritonavir and lopinavir, and interferon beta 1a. Eventually, the WHO concluded that the four repurposed drugs have little or no effect on hospitalised Covid-19 patients.

Now, the UK clearance to molnupiravir, and the promise shown by Pfizer's drug, could pave the way for more effective management of Covid-19.

The UK regulator said molnupiravir has been found to be "safe and effective" following a "stringent review of the available evidence". On October 27, the WHO said molnupiravir is being evaluated for inclusion in the WHO guidelines on Covid-19 therapeutics — and "is pending authorization for its use from regulatory bodies".

For Paxlovid, Pfizer plans to submit its trial data to the US FDA for emergency use authorisation as soon as possible.

Merck's new antiviral medication against COVID-19. (Merck & Co. via AP, File)

What is molnupiravir?

Molnupiravir (MK-4482, EIDD-2801), developed initially to treat influenza, has been repurposed to treat Covid patients. It interferes with the replication of SARS-CoV-2, thereby reducing severity of disease.

It is most effective when used early; the UK has recommended its use as soon as possible following a positive test and within five days of symptoms onset.

Merck expects to produce 10 million courses by the end of 2021. Merck, which already struck advance purchase agreements, will supply approximately 1.7 million courses to the US government; and 4,80,000 courses to the UK government. According to an article in Nature magazine, based on the US purchase, the cost of a five-day course works out to $700.

What is Paxlovid?

It is an investigational SARS-CoV-2 "protease inhibitor antiviral therapy": It inhibits viral replication at proteolysis, a stage that occurs before viral replication. It is "… designed to be administered orally so that it can be prescribed at the first sign of infection or at first awareness of an exposure, potentially helping patients avoid severe illness," Pfizer says.

Pfizer said it has entered into advance purchase agreements **with "multiple countries** and is in negotiations with several others".

The Pfizer logo is placed near medicines from the same manufacturer in this illustration. (Reuters: Dado Ruvic)

What have global trials shown?

On October 1, Merck announced the interim analysis of a global phase 3 study: 7.3% of patients who received molnupiravir were hospitalised through day 29 — compared to 14.1% of placebo-treated patients who were hospitalized or died.

Molnupiravir reduced the risk of hospitalisation or death **by approximately 50%**; and through day 29, no deaths were reported in patients who received molnupiravir, as compared to 8 deaths in patients who received placebo. On participants with available sequencing data (40%), molnupiravir demonstrated "consistent efficacy" across variants Gamma, Delta, and Mu.

Pfizer's phase 2-3 study is being conducted across several countries. On Friday, it said an interim analysis found that Paxlovid **reduces the risk of hospitalisation or death by 89%** compared to placebo in non-hospitalized high-risk adults with Covid-19. Through Day 28, no deaths were reported in patients who received Paxlovid as compared to 10 deaths in patients who received placebo. Third, 0.8% of patients who received Paxlovid were hospitalised through Day 28 following randomization — compared to 7% of patients who received placebo and were hospitalised or died.

What is the status of the trials in India?

Merck has been in talks with multiple Indian drug manufacturers for voluntary licensing for molnupiravir. On June 29, five Indian pharma companies including Cipla Ltd, Dr Reddy's

Laboratories Ltd (DRL), Emcure Pharmaceuticals Ltd, Sun Pharmaceutical Industries Ltd, and Torrent Pharmaceuticals Ltd announced that they are collaborating for a trial of molnupiravir for the treatment of mild Covid in an outpatient setting.

"Interim data has been shared with the Drugs Controller General of India (DCGI). For now, the trial is in progress. We are also following approval-related developments in other countries, as well as the Covid-19 situation in various countries," a DRL spokesperson said.

On September 9, the Subject Expert Committee of the Central Drugs Standard Control Organisation (CDSCO) said Hetero Labs Ltd had presented interim clinical data in moderate Covid-19 patients.

Last week, Hyderabad-based Optimus Group announced the completion of its phase 3 trial: On the fifth day, 78.4% in the treatment group tested RT-PCR negative compared to 48.2% in the placebo group; on the 10th day, 91.5% of the patients in the treatment group tested negative compared to 43% in the placebo group.

The Indian EXPRESS

Australia hits 'magnificent milestone' with 80% rate of vaccinations

Nearly 90% of eligible people have been fully vaccinated in the most populous state of New South Wales, and almost 95% in the capital Canberra, but this figure drops to just 65% in the sparsely populated Northern Territory and Western Australia.

By: Reuters | Melbourne |
November 6, 2021 12:46:47 pm

Passengers wear face masks as they arrive at the departures terminal at Sydney Domestic Airport in Sydney, Australia Friday, Nov. 5, 2021. (AP)

Australia reached on Saturday a full inoculation rate of 80 per cent of those aged 16 and older, which Prime Minister Scott Morrison called a "magnificent milestone" on the path to becoming one of the world's most vaccinated countries against Covid-19.

Once a champion of a Covid-zero strategy to manage the pandemic, the country of 25 million has moved towards living with the virus through extensive vaccinations, as the Delta variant has proven too infectious to suppress.

"Another, magnificent milestone, Australia," Morrison said in a video post on Facebook. "That's four out of five, how good is that? This has been a true Australian national effort."

While vaccinations remain voluntary on the federal level, Australia's states and territories introduced mandatory measures for many occupations and workers. The unvaccinated are barred from many activities, such as dining out or concerts.

On Monday, Australia eased international border curbs for the first time during the pandemic, but only for vaccinated people from highly inoculated states.

Media said about 3,000 people gathered for a peaceful protest against vaccine mandate protests in Melbourne, the capital of the

southeastern state of Victoria, which spent nearly nine months in six lockdowns through the pandemic.

Australia has seen frequent, occasionally violent anti-vaccine rallies during the past few months, but the movement remains small, with polls showing the numbers of those who oppose vaccinations are in the single digits across the nation.

The nationwide vaccination figure incorporates some uneven levels, however.

Nearly 90 per cent of eligible people have been fully vaccinated in the most populous state of New South Wales, and almost 95 per cent in the capital Canberra, but this figure drops to just 65 per cent in the sparsely populated Northern Territory and Western Australia.

The country recorded 1,558 infections and 10 deaths on Saturday, with the majority of infections in Victoria. Some parts of the Northern Territory are in a snap, three-day lockdown, after an outbreak grew to three cases.

Despite the Delta outbreaks that led to months of lockdown in the two largest cities, Sydney and Melbourne, the national tally of less than 179,000 infections and 1,587 deaths is far lower than that of many developed nations.

The Indian EXPRESS

Explained: How does Merck's Covid-19 pill compare to Pfizer's?

Pfizer and Merck have developed experimental antiviral pills that have shown promising efficacy in trials of adults with Covid-19 who are at high risk of serious illness. Here is an explanation of the differences in the two pills.

By: Reuters |
Updated: November 9, 2021 3:03:00 pm

Pfizer and Merck's drugs are being studied to see if they can prevent infection in people exposed to the virus. (Agency photos)

Pfizer Inc and Merck & Co Inc have developed experimental antiviral pills that have shown promising efficacy in trials of adults with COVID-19 who are at high risk of serious illness. Both drugs also are being studied to see if they can prevent infection in people exposed to the virus.

Here is an explanation of the differences in the two pills.

Trial figures provided by the two companies suggest that Pfizer has the more effective pill, but they have not yet offered full data.

Pfizer said on Friday trial results showed that its pill reduced the chance of hospitalization or death **by 89% in COVID-19 patients at risk for severe illness** given the treatment within three days of the onset of symptoms and by 85% when given within five days of onset.

Merck on Oct. 1 said its pill lowered the chance of hospitalization or death **by about 50%** in patients at risk for severe illness given the treatment within five days of onset. It did not provide figures regarding patients getting the pill within three days of onset.

Pfizer's drug has the brand name Paxlovid. Merck's drug has the brand name Lavgevrio in Britain, where it has won regulatory approval.

Merck's new antiviral medication against COVID-19. (Merck & Co. via AP, File)

Why are these drugs important?

While a number of vaccines are available worldwide to prevent infection including one made by Pfizer, there are limited treatment options for people infected with COVID-19.

Currently, COVID-19 patients who are not sick enough to be hospitalized but are at risk of serious illness can be treated with antibody drugs, though they have to be given intravenously at hospitals or infusion centers.

How do they work?

Both drugs are given for five days. Pfizer's regimen is three pills in the morning and three pills at night. Merck's drug is taken as four pills in the morning and four at night.

Pfizer's drug is part of a class known as protease inhibitors designed to block an enzyme that the coronavirus needs to multiply. Pfizer said that because the drug targets a part of the virus essential to replication, the pathogen cannot become resistant to the treatment.

Pfizer's drug is given in combination with ritonavir, an older antiviral that boosts the activity of protease inhibitors but can cause gastrointestinal side effects and interfere with other medications.

Merck's pill, developed with Ridgeback Biotherapeutics, is a nucleoside analogue with a mechanism of action that aims to introduce errors into the genetic code of the virus. Because the drug generates random mutations into the virus, it is difficult for the coronavirus to evolve and become resistant.

The Pfizer logo is placed near medicines from the same manufacturer in this illustration. (Reuters: Dado Ruvic)

What do we know about safety?

Both companies have released only limited data on the treatments, but expressed confidence in their safety.

Pfizer said about 20% of patients who received either the pill or a placebo experienced adverse events, mostly mild. Serious side effects were reported by 1.7% of patients receiving the drug and 6.6% of placebo patients.

Merck said 12% of patients receiving its drug and 11% of placebo patients experienced drug-related adverse events.

Drugs in the same class as Merck's pill have been linked to birth defects in animal studies. Merck has said similar studies of its drug – for longer and at higher doses than used in humans – show that it does not cause birth defects or cancer.

What do we know about supplies?

Pfizer and Merck have said they are making efforts to expand global access to the drugs. Pfizer said it expects to produce more than 180,000 courses of its therapy by the end of this year, with production of at least 50 million planned for 2022.

Merck has said it expects to produce 10 million courses of its drug by the end of this year, with at least 20 million set to be manufactured in 2022.

Which costs more?

The US government provides vaccines and treatments for COVID-19 for free to US residents. Countries around the world are negotiating prices with Pfizer and Merck.

President Joe Biden on Friday said the US government has secured millions of doses of Pfizer's treatment.

Merck has a $1.2 billion contract to supply the United States with 1.7 million courses of its drug – or about $700 per course.

Britain has secured 250,000 courses of Pfizer's drug, but prices for the British contracts have not been made public.

The Indian EXPRESS

Bharat Biotech's US partner Ocugen files EUA request with FDA for paediatric use of Covaxin

The submission is based on results of a Phase 2/3 paediatric clinical trial conducted by Bharat Biotech in India with 526 children 2-18 years of age, which bridged immunogenicity data to a large, Phase 3 safety and efficacy clinical trial in nearly 25,800 adults in India, Ocugen said in a regulatory filing.

By: PTI | Hyderabad |
Updated: November 6, 2021 10:32:33 am

Ocugen Inc., Bharat Biotech's partner for USA and Canada for Covid-19 vaccine Covaxin on Friday said it has submitted a request to the US Food and Drug Administration (FDA) for Emergency Use Authorization (EUA) of the jab for paediatric use.

The submission is based on results of a Phase 2/3 paediatric clinical trial conducted by Bharat Biotech in India with 526 children 2-18 years of age, which bridged immunogenicity data to a large, Phase 3 safety and efficacy clinical trial in nearly 25,800 adults in India, Ocugen said in a regulatory filing.

"Filing for Emergency Use Authorization in the US for paediatric use is a significant step toward our hope to make our vaccine candidate available here and help combat the Covid-19 pandemic," Shankar Musunuri, Chairman of the Board, Chief Executive Officer and Co-Founder of Ocugen said.

Some research suggests that people are seeking more choices when selecting a vaccine, especially for their children. Having a new type of vaccine available will enable people to discuss with their child's physician the best approach for them to lower their child's risk of contracting Covid-19, he further said.

"The inactivated virus platform has been used for decades in vaccines for the paediatric population and, if authorized, we hope to offer another vaccine option to protect children as young as two years," he added.

A Phase 2/3, open-label, multi-center study was conducted in India from May 2021 to July 2021 to evaluate the safety, reactogenicity and immunogenicity of the whole-virion inactivated Vaccine in healthy volunteers in the 2-18 age group.

Covaxin was evaluated in three age groups: 2-6 years, 6-12 years and 12-18 years. All participants received two doses of the vaccine 28 days apart, it said.

Covaxin was recently awarded Emergency Use Listing by the World Health Organization.

The Indian EXPRESS

Pfizer says its antiviral pill slashes risk of severe Covid-19 by 89%

Pfizer's pill, with the brand name Paxlovid, could secure US regulatory approval by the end of the year. Pfizer said it plans to submit interim trial results to the Food and Drug Administration (FDA) before the Nov. 25 US Thanksgiving holiday.

By: Reuters |
November 6, 2021 9:36:14 am

The Pfizer and Merck pills are eagerly anticipated, with only limited options currently available for treating people sick with COVID-19. (AP)

Pfizer Inc's experimental antiviral pill to treat COVID-19 cut by 89% the chance of hospitalization or death for adults at risk of severe disease, the company said on Friday, as its CEO vowed to make this promising new weapon in the fight against the pandemic available globally as quickly as possible.

The trial's results suggest that Pfizer's drug surpasses Merck & Co Inc's pill, molnupiravir, which was shown last month to halve the chance of dying or being hospitalized for COVID-19 patients at high risk of serious illness.

Pfizer's pill, with the brand name Paxlovid, could secure US regulatory approval by the end of the year. Pfizer said it plans to submit interim trial results to the Food and Drug Administration (FDA) before the Nov. 25 US Thanksgiving holiday.

The trial was stopped early due to its high success rate.

President Joe Biden said the U.S. government has secured millions of doses of Pfizer's drug. "If authorized by the FDA we may soon have pills that treat the virus in those who become infected," Biden said.

"The therapy would be another tool in our toolbox to protect people from the worst outcomes of COVID."

Shares in Pfizer, which also makes one of the mostly widely used COVID-19 vaccines, rose 11% to close at $48.61. Merck's fell 10% to close at $81.61.

Shares of vaccine makers took a hit, with Moderna Inc, Pfizer's German partner BioNTech SE and Novavax all down 11-21%.Pfizer's pill is given in combination with an older antiviral called ritonavir. The treatment consists of three pills given twice daily.

It has been in development for nearly two years.

The Pfizer and Merck pills are eagerly anticipated, with only limited options currently available for treating people sick with COVID-19.

Full trial data is not yet available from either company.

Pfizer is in active discussions with 90 countries over supply contracts for its pill, Chief Executive Officer Albert Bourla said in an interview.

"Our goal is that everyone in the world would be able to have it as quickly as possible," Bourla said.

Bourla added that for high-income countries Pfizer expects to price its treatment close to where Merck has priced its drug. Merck's U.S. contract price is around $700 for a five-day course of therapy.

For low-income countries, Bourla said Pfizer is considering several options, with the goal of "no barrier for them as well to have access."

Merck's pill was approved by British regulators in a world first on Thursday. Even with the potential offered by the Pfizer and Merck pills, preventing COVID-19 infections through broad use of vaccines remains the best way to control a pandemic that has killed more than 5 million people worldwide, including more than 750,000 in the United States, infectious disease experts said.

"Vaccines are going to be the most effective and reliable tool that we have in this pandemic," said Dr. Grace Lee, professor of pediatrics at Stanford University School of Medicine.

"These oral medications are going to augment our ability to really reduce the risk of severe disease, hospitalization and death, which is huge, but it won't prevent infection."

While more than 7 billion vaccine doses have been administered worldwide, that has covered only about half the world's people.

In the United States, 58% of all people, including 70% of adults, are fully vaccinated.Mizuho analyst Vamil Divan forecast a "very minor impact" from Pfizer's drug on vaccination among people who do not want the vaccine or a booster shot as recommended by U.S. health regulators.

"I think there's a small percentage of people that may decide not to get vaccinated now that there are good treatment options," Divan said.

MANUFACTURING GOALS

Pfizer said it expects to manufacture 180,000 treatment courses by the end of this year and at least 50 million courses by the end of next year, including 21 million in the first half of 2022.

Bourla said that, based on the better-than-expected trial results, Pfizer is considering potentially doubling next year's manufacturing target.

Antivirals need to be given as early as possible, before an infection takes hold, to be most effective.

The planned analysis of 1,219 patients in Pfizer's study examined hospitalizations or deaths among people diagnosed with mild to moderate COVID-19 with at least one risk factor for developing severe disease, such as obesity or older age.

Among those given Pfizer's drug within three days of symptom onset, the pill lowered the chances of hospitalization or death for adults at risk of developing severe COVID-19 by 89% compared to those receiving a placebo.

Among these patients, 0.8% were hospitalized and none died by 28 days after treatment, compared to a 7% hospitalization rate and seven deaths in the placebo group.Rates were similar for patients treated within five days of symptoms: 1% of the treatment group was hospitalized, compared to 6.7% for the placebo group, which included 10 deaths.

Pfizer said that represents 85% effectiveness at preventing hospitalization or death.Two other trials – one in people without underlying risk factors and another in people who have been exposed to the virus but are not yet infected – are continuing, with those results likely be available in the first quarter of 2022, Bourla said.

Pfizer did not detail side any effects but said adverse events happened in about 20% of both

treatment and placebo patients. Possible side effects include nausea and diarrhea.

The Indian EXPRESS

Pfizer CEO in talks with 90 countries for Covid-19 pill

The pill was shown to reduce by 89% the risk of hospitalisation or death in patients at high risk of severe illness, according to Pfizer CEO.

By: Reuters |
Updated: November 6, 2021 8:24:36 am

Pfizer Inc is in discussions with 90 countries over supply contracts for its experimental Covid-19 pill, which was shown to reduce by 89% the risk of hospitalisation or death in patients at high risk of severe illness, Chief Executive Officer Albert Bourla said in an interview on Friday.

He said Pfizer expects to price its treatment, called Paxlovid, close to where rival Merck & Co Inc has priced its oral antiviral drug candidate.

Merck's US contract price for its pill molnupiriavr is around $700 for a five-day course of therapy.

THE TIMES OF INDIA

Nashik: Health department starts special drive to find TB patients

TNN | Nov 16, 2021, 04.02 AM IST

Nashik: The district health department has initiated a special drive to identify tuberculosis (TB) patients in rural areas of the district. The drive will held in two phases with the first phase beginning from Monday, and will continue till November 25. Tuberculosis officer M B Deshmukh said they have decided to conduct a survey of over 5.70 lakh people in the rural district and as many as 387 teams would be visiting the households to check if people are suffering from the disease, affecting the lungs

Currently, there are 1,917 TB patients in the rural areas of the district, out of which 70 are Multi Drug Resistant (MDR). Officials from the district health department said under the national tuberculosis elimination programme, the government of India has decided to free the country from TB. Going by the existing figures of TB cases, it can be said that the disease is under control.

The second phase of the drive will be implemented from December 13 to December 23. Health workers and volunteers would be visiting every household in the targeted areas to detect TB patients and trained Asha workers would also collect swab samples of suspected patients by going to various households.

Deshmukh said they appeal to the people to cooperate with the health workers and volunteers. "Those who have symptoms of TB should get their swab samples tested and also go for an X-ray investigation," he added

THE TIMES OF INDIA

BMC to carry out door-to-door survey for tuberculosis

TNN | Nov 14, 2021, 04.56 AM IST

MUMBAI: The BMC will next week carry out a house-to-house survey covering 17 lakh people to check for tuberculosis (TB).

The survey will begin on Monday and continue till November 25, with 876 teams fanning across the 24 wards, said BMC executive health officer Dr Mangala Gomare, adding that people should cooperate with the investigation team. A special 'voucher' will be given to people who are suspected to have TB which will entitle them to free tests.

Due to the Covid pandemic and lockdown, the number of TB registrations dropped in 2020 to 40,000 as against 60,000-plus in 2019. In 2021 so far, the BMC has managed over 42,000 registration from new patients.

THE TIMES OF INDIA

Door-to-door survey of TB patients from today

TNN | Nov 15, 2021, 04.41 AM IST

Nagpur: House-to-house survey was a successful measure to detect Covid-19 cases during first and second wave. The government is using a similar strategy for detecting patients with tuberculosis now. A tuberculosis search campaign will be implemented from November 15 to 25 in Nagpur district. Under this campaign, teams of the health department will visit houses in marked regions of Nagpur district and collect the samples of residents having symptoms of TB from long time. Accordingly, their X-Ray and CB-NAT testing will also be conducted. "Team members will conduct survey of all family-members. Those having cough for more than 2 weeks, fever, experiencing sudden drop in weight etc will be tested for TB," said district TB officer Dr Mamta Sonsare. In case of diagnosis, free medical treatment will be provided by the local health institutions.

All households in rural areas and selected areas in urban areas will be surveyed. Survey team will have two members. It will include Asha Swayamsevak in rural and Arogya Sevak in city areas. The National strategic plan for tuberculosis elimination 2017-2025 aims at eliminating TB in the next 4 years. "Detect – Treat – Prevent – Build" (DTPB) is the formula on which the state health department is working.

Hospitals, diagnostic labs and medical stores have been directed to keep the record of TB patients and upload it on the digital platform to ensure the documentation of TB.

"Till now, only medical practitioners, hospitals and laboratories were notifying TB patients to government health system. Now, all chemists will also inform about TB patients for whom they have dispensed the TB drugs," said Dr Sonsare. TB patients are also encouraged to notify themselves. "We are planning to reach out every TB patient so that the incentives and support to patients, families and communities can be properly extended," Dr Sonsare added.

THE TIMES OF INDIA

TB preventive treatment scheme to cover 11 districts

TNN | Nov 15, 2021, 04.00 AM IST

PATNA: Health minister Mangal Pandey on Sunday said that the Centre's Programmatic Management of TB Preventive Treatment (PMTPT) scheme will help in complete prevention of tuberculosis in the state. Initially, 11 districts, namely Darbhanga, Muzaffarpur, East Champaran, Saran, Purnia, Siwan, Gopalganj, Nalanda, Samastipur, Bhagalpur and Vaishali, will be covered under the scheme. According to health officials, the drive against the tuberculosis

has started in Vaishali and Darbhanga. In order to achieve the ambitious target of TB eradication by 2025, the state will not only provide free treatment for TB, but also make people aware and suggest preventive measures, the minister said. In the PMTPT, the targeted population at risk of developing TB are systematically reached out, screened and provided TPT after ruling out TB.

Pandey said in the financial year 2021-22, the families of TB patients across the state will also be identified and the process of screening will be expedited. "TB preventive treatment is being started in the districts to keep all the family members of TB patients free from this disease," he said. "Learning training programme has been completed for the implementation of TB eradication in Manjhauli panchayat of Vidyupur block of Vaishali district. Doctors, medical officers, health workers and staff of non-governmental voluntary organizations such as World Health Partners, Doctors for You, Clinton Health Access Initiative will also be trained in all districts for better implementation of PMTPT scheme," Pandey said.

He said the department has been tirelessly working to provide treatment to TB patients at the earliest. "According to the new plan, TB treatment will prove to be helpful in the prevention of potential diseases. With the TB Prevention Plan, it will protect people from getting infected with diseases when came in contact with TB patients. Awareness is being spread through various means so that people who get treatment from private doctors can also get the benefit of this scheme," the minister said.

CDC Centers for Disease Control and Prevention
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Latent Tuberculosis Infection Resources

Updated November 9, 2021

So:
https://www.cdc.gov/tb/publications/ltbi/ltbiresources.htm

CBC

Researcher developing online tool to help find missing Indigenous tuberculosis patients

U of W researcher wants to empower families, communities to navigate records, government agencies

Sarah Petz · CBC News · Posted: Nov 15, 2021 1:26 PM CT
Last Updated: November 16

The Ninette Sanatorium opened in May 1909 and over the next several decades, the facility grew into the largest sanatorium in the province, comprising over a dozen buildings and taking in thousands of tuberculosis patients. With advances in medicine it was eventually not required and closed in 1972. (Gordon Goldsborough/Manitoba Historical Society)

A University of Winnipeg researcher is developing an online research tool to help Indigenous communities and families find missing tuberculosis patients who were sent to Manitoba

hospitals and sanatoriums but never came home.

Anne Lindsay is a post-doctoral fellow at the University of Winnipeg and will be working with the university's Manitoba Indigenous Tuberculosis History Project on the initiative.

Lindsay has spent several years working as an archivist and researcher. Her experience includes working with the Truth and Reconciliation Commission. Some of her work has involved helping families research connections to residential and Indian hospital schools, and find where missing residential school children may be buried.

Due to privacy laws, the tool won't be a database of records of missing tuberculosis patients, but will instead empower families and communities to do their own research, Lindsay said.

"I think it needs to be something that is not just a set of links, but that gives people some information about where to start looking and how to use the information from that to get other information, and sort of helps to give people a bit more of a step-by-step understanding of how to perform their own research," she said.

Simplifying process

Doing this on your own can be difficult, since it's often unclear which government agency might hold those records, or which records you would even be looking for, Lindsay said. The hope is that this new guide will help demystify that process, she said.

"What we're trying to do is to come up with a web guide that will support people, not only by identifying the kind of very broad, different places that you might need to look for these sorts of records, but also to present it in a way that is usable," she said.

"Because it can get very complicated and a bit overwhelming, sometimes with the different places and different agencies you need to look at."

In the first half of the 20th century, tuberculosis on reserves was a significant problem. Under the Indian Act, it was legal to seize kids suspected of having tuberculosis and send them to sanatoriums — sometimes directly from their residential school.

Lindsay says it is hard to quantify how many missing Indigenous tuberculosis patients there might be, but said it's an issue that has come up quite often in the Indigenous tuberculosis project's discussions with families and Indigenous communities.

"It's difficult to really have a statistic of this when you don't have an overall statistic of how many times that happened compared to how many times people were informed," she said.

"But certainly the people who contact me, that is their story."

At this point Lindsay says she is reaching out to different First Nations and other stakeholders to see what they would find most helpful. She's also trying to find different groups and individuals who have already done their own research on this issue to see if they can help.

You can contact her at tbphotos@uwinnipeg.ca. The website is expected to be published by January 2022.

So:
https://www.cbc.ca/news/canada/manitoba/tuberculosis-research-tool-missing-indigenous-patients-1.6249435

JOIN THE FIGHT TO END TUBERCULOSIS - THE WORLD'S BIGGEST INFECTIOUS KILLER

So: https://www.stoptb.org/advocacy-communications

Hepatitis C and TB Long-Acting Medicines: Analysis of Patenting Trends and Implications for Access

Treatment Action Group releases a patent landscape investigating potential patent barriers for the development and delivery of long-acting formulations for selected hepatitis C and TB medicines.

Long-acting medicines hold enormous potential for the treatment of hepatitis C virus (HCV) and prevention of tuberculosis (TB). They could possibly help people who may not have immediate access to healthcare settings maintain adherence to regimens while decreasing the number of clinic visits, and could ensure discretion and confidentiality when being treated, a development that could be particularly beneficial to incarcerated populations.

However, existing patents could pose obstacles to obtaining treatment, particularly in low- and middle-income countries. A patent landscape, released by Treatment Action Group (TAG), identified a total of 55 patents and patent applications, of which 19 are updates. The report *'Hepatitis C and Tuberculosis Long-Acting Medicines: Analysis of Patenting Trends and Implications for Access'* offers recommendations to ensure access to long-acting technologies throughout the research and development process.

Given that licensing agreements will require negotiations either with originator companies or patent holders, to ensure equitable access to long-acting therapies, questions relating to equitable access should be addressed at the early stages of the research and development process. This includes guaranteeing affordable prices for all, invoking the use of intellectual property flexibilities, and ensuring multiple producers to secure a sustainable supply chain.
'

The report was presented on 4 November 2021 during a webinar *'Same Meds, New Patents: What Do Activists Need to Know About Long-Acting Technologies'*, co-hosted by Treatment Action Group (TAG) and the International Treatment Preparedness Coalition (ITPC). A panel of treatment activists shared different countries' perspectives on how activists can fight back against restrictive patents on long-acting technologies.

WILEY ONLINE LIBRARY

Bovine tuberculosis in Taiwan, 2008–2019

Tai-Hua Chan,Chun-Sheng Huang,Chien Tu,Ruwen Jou

First published: 01 November 2021

https://doi.org/10.1111/tbed.14371

Summary

Bovine tuberculosis (bTB) is a zoonosis caused by *Mycobacterium bovis*. The impact of bTB on global TB control has been underestimated. We adopted the One Health approach to human bTB surveillance in Taiwan. Of 20,972 human TB cases, 202 (1.0%) were bTB, 78.2% were in males, 85.1% were new cases, 83.2% were pulmonary TB, and most were in Central (52.5%) and Southern (24.8%) Taiwan. Only 18.8% of bTB patients had known animal contact. Of the 202 human *M. bovis* strains, 100% were resistant to pyrazinamide (PZA), 30.2% were concurrently resistant to isoniazid (INH) and 2.0% were multidrug resistant, defined as being resistant to at least INH and rifampin. Whereas, of the 22 animal *M. bovis* strains, 100% and 22.7% were resistant to PZA and INH, respectively. Seven spoligotypes and 25 mycobacterial interspersed repetitive unit genotypes were identified. The predominant genotype, SB0265, was also prevalent in livestock. Notably, 6 animal-specific *M. bovis* genotypes were identified. bTB differential diagnosis and drug resistance detection are crucial for TB control. Comprehensive surveillance and human-animal interface investigations are needed.

spotlight

Five developments in paediatric tuberculosis

4th November 2021 | Elri Voigt

The screening, diagnosis, and treatment of tuberculosis (TB) in children remain far from optimal – and in many respects lag behind what can be done for adults.

Below we pick out five developments in paediatric TB presented at the 52nd Union World Conference on Lung Health recently held online. It is a big conference and we no doubt missed some interesting studies – you can browse the conference abstracts for yourself here.

While, in our view at least, there were no obvious stand-out results like last years' landmark SHINE treatment shortening study, which we reported on here, it has nevertheless been another year of important advances.

Treatment for kids

Using bedaquiline and delamanid in children

Over the last decade, drugs like bedaquiline, and to a lesser extent delamanid and pretomanid, have transformed the treatment of drug-resistant TB (DR-TB) in adults. As often happens, it has arguably taken far too long to do the studies required to establish how to best use these medicines in children. Fortunately, a number of studies presented at the conference looked at different treatment options for children.

Quality Assurance Manager for endTB Clinical Trials in Pakistan, Saman Ahmed presented findings on the safety and efficacy of DR-TB regimens containing Bedaquiline and Delamanid in children and adolescents.

The findings were part of the endTB observational study and looked at 190 children and adolescents aged 19 years or younger who were treated for TB with regimens containing Bedaquiline and Delamanid. The study showed a high success rate of 85%, which is classified as the TB being cured or treatment is completed.

She says there were several adverse events of interest, the most common being peripheral neuropathy, (which occurred in 16% of participants), electrolyte depletion (which occurred in 15% of participants), and hearing loss (which occurred in 7% of patients. But the majority of these side effects got better.

Based on the study, Ahmed says that the treatment of DR-TB with regimens containing Bedaquiline and Delamanid is not only effective but also well-tolerated among children and adolescents. She argues that all oral regimens, including bedaquiline and delamanid, should be scaled up for these age groups, as has already been recommended by the World Health Organization (WHO).

2. New combination dispersible tablet

Apart from delays in studies testing new TB drugs in children, other challenges include medicines that taste bad and difficulties in getting the dosages right for growing kids. Some promising results addressing both these challenges in the treatment for drug-sensitive TB in kids were presented at the conference.

Infectious Diseases Specialist Dr Awewura Kwara told attendees that for children on standard first-line therapy, insufficient plasma concentrations of the drugs isoniazid, rifampicin, and pyrazinamide is contributing factor for death and treatment failure.

To this end, Kwara presented interim findings from a small study being done in Ghana to verify that a new child-friendly Isoniazid, rifampicin, pyrazinamide fixed-dose combination (FDC) dispersible tablet for TB treatment in children achieved target drug concentrations.

The FDC tablet was developed based on the revised WHO dosing guidelines for children. The tablet according to Kwara is water dispersible, palatable and unlike the previous formulation, it does not require supplemental isoniazid/rifampicin tablets to achieve the recommended dosages

The study enrolled 92 children aged less than 15 years with clinical confirmation of TB with or without HIV coinfection. 68 completed PK testing and were included in the analysis.

According to Kwara, the FDC tablet achieved dosages within the recommended ranges for each drug in most children in the study, and results suggest that the isoniazid and pyrazinamide dosages in the FDC tablet are adequate. However, nearly 60% of the participants' rifampicin levels weren't as good as hoped, suggesting that a higher dosage is needed. Malnutrition was also a risk factor for insufficient rifampicin levels.

Diagnosis and screening in kids

This year's conference also showcased a variety of studies and presentations that focused on ways to diagnose or screen for TB in children that did not involve collecting sputum. The current gold standard TB tests all rely on sputum – which most children struggle to produce.

Head of the TB research group at the MRC Unit in The Gambia, Dr Jayne Sutherland explained the need for a triage test that is quick and doesn't rely on sputum. "What you want is a test where you can have your answer quite quickly, you want a test that does not rely on sputum because a lot of children, a lot of people living with HIV cannot produce sputum or they have a very low pathogen load in there," she says.

Promising fingerstick blood test

Sutherland presented interim findings for a new blood test for TB. The screening test, called Xpert MTB-HR prototype, is a fingerstick blood test that works by analysing the expression of three different genes. The interim results were only from adults, but Sutherland says that children are also taking part in the study and findings in children will be included when the full study is reported.

So far, the interim results show that the screening test provides a sensitivity of 87% and specificity of 94%, which meets the WHO target product profile for a triage test for TB. Spotlight has unpacked the fingerstick findings in more detail here.

Sutherland says that the GBP5 gene signature, which is one of the three genes the test looks for, is particularly promising for childhood TB diagnosis. Spotlight will keep a close eye on future findings from this study.

Testing for TB in stool

Infectious diseases epidemiology researcher at the University of Bordeaux, France, and International Trial Manager for the TB-Speed project Aurélia Vessière presented findings from the TB-Speed Pneumonia study. It assessed the feasibility and yield of systematic TB detection using Xpert MTB/RIF Ultra on Nasopharyngeal aspirate (NPA) and stool samples in children with severe pneumonia. Xpert MTB/RIF Ultra is already widely used to detect TB and some TB drug resistance from sputum.

"Our hypothesis was that systematic, early molecular TB detection in children with severe pneumonia could increase TB case detection and eventually reduce mortality," she says

2 570 children between the ages of 2 to 59 months, were enrolled in the study between March 2019 and March 2021. The participants were divided into a control group, which received the WHO standard of care for children with severe pneumonia, and an intervention group.

Vessière says the intervention group (1169 children) received the WHO standard of care as well as systematic early detection of TB using Xpert Ultra. One stool sample and one NPA sample were taken from each child and tested using Xpert Ultra within 24 hours of hospitalisation. TB treatment was initiated immediately if the result was positive for TB.

She says in terms of the feasibility of sample collection and testing with Ultra, NPA collection was done successfully on 97% of the intervention group, and of those children, 96% had a valid Ultra result. For the stool collection, 81% of the intervention arm had their stool collected, and of those 79% had a valid Ultra result.

Of those children in the intervention group, 89 children (or just over 8%) tested positive for TB, according to Vessière, which was a lower-than-expected yield. She adds that not all the children were diagnosed with TB based on the Ultra test, as some were diagnosed based on radiological or clinical features based on the clinician's decisions.

The results showed that the percentage of diagnoses that were based on a positive Ultra result on an NPA was around 24%, while a positive Ultra result on a stool sample was about 18%, and 27% for either of the samples.

According to Vessière, the results demonstrated a high feasibility of combined NPA and stool sample collection. **"**Ultra testing on either stool or NPA contributed to microbiological confirmation in ¼ of TB diagnosis," she says

A new battery-powered mucus aspirator

Research director in the TRANSVIH MI research unit at the French National Research Institute for Sustainable Development (IRD) Dr Maryline Bonnet presented study findings on a battery-operated mucus aspirator, as well as an alternative manual system for nasopharyngeal aspirate (NPA) to test for TB in children. This was part of her presentation on results from the TB-speed project, which is evaluating different diagnostic approaches. One such approach is NPA for Ultra testing (i.e. testing NPA samples with Ultra, as discussed above). Using Xpert MTB/RIF Ultra to test NPA samples is now recommended by the WHO as a method of TB diagnosis in children.

Mucus aspirators are devices used to suck mucus samples, in this case from the upper part of the throat behind the nose.

Bonnet says that the TB-Speed project has a component where it seeks to improve equipment used for implementation of NPA at a primary health care level. She explains that the target product profile identified for this aspect of the project is a mucus aspirator that can be safely used on children less than 10 years old. Other specifications for the device include being battery operated so it can be used in primary healthcare in resource-limited countries with irregular access to electricity, and aspirate at least 1ml or more of nasopharyngeal mucus. Based on this, Bonnet recommends the use of the ATMOS LC27 with battery (it costs 399 Euro).

In parallel, she says, the team also developed a manual operating aspirate pump, that can be used by nurses. There have been five prototypes, with the latest having been assessed for end-user feedback, function, and longevity. The feasibility assessment in healthy adult volunteers is ongoing.

She says that NPA is feasible and acceptable in highly vulnerable children with pneumonia and at low-level healthcare facilities, but tolerability of this semi-invasive test remains a challenge.

SO: https://www.spotlightnsp.co.za/2021/11/04/five-interesting-developments-in-paediatric-tuberculosis/

BOWLING GREEN DAILY NEWS

wayback when in warren county

New tuberculosis hospital opens in 1956

Nov 3, 2021

HELPING IN ESTABLISHMENT of Warren County's new Sunrise Tuberculosis Hospital, which observed open house yesterday, were, from left, front: Dr. L. C. Curry, chairman of hospital trustees; W. L. Hall Sr., trustee; Dr. Frank Moore, trustee; Al Vaughn, trustee; Mrs. Ed Covington, trustee; Emory Chaney, trustee, and County Judge John M. Milliken, trustee. Rear: Albert Ray Douglas, J. L. Harmon Jr., Dr. W. R. McCormack, members of the corporation board set up to administer the hospital's construction; Bob Graham, corporation board chairman; G. D. Milliken Jr., attorney, and Wayne A. Patterson, secretary-treasurer of both the board of trustees and corporation board.

During the week of Nov. 4-11, 1956, 25 patients were moved from the old Riverside Tuberculosis Sanitarium to the new Sunrise Tuberculosis Hospital.

The Nov. 5, 1956, Park City Daily News carried this photo from the opening of Sunrise Tuberculosis Hospital.

The Riverside institute was created in 1941 from the "Dirt House" built by Sam Clark, a former Bowling Green resident who found success in Chicago. The Sunrise Tuberculosis Hospital, now a LifeSkills building on Woodway Street, was a modern facility built to provide better services for tuberculosis patients.

– "Way Back When in Warren County" is compiled by researchers at the Warren County Public Library and appears twice weekly in the Bowling Green Daily News. For more information about the library, visit warrenpl.org.

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