WHO grants emergency listing for Corbevax COVID vaccine

News brief | Today at 3:20 a.m.

Lisa Schnirring

Topics: COVID-19

SHARE

The World Health Organization (WHO) has approved another COVID-19 vaccine for emergency use listing (EUL): Corbevax, a recombinant protein–based vaccine developed by scientists at Texas Children's Hospital and Baylor College of Medicine.

During the EUL process, WHO advisory groups evaluated the vaccine to ensure that it meets the WHO's standards for protection and safety, with a goal of speeding the availability of products to people who need them. Corbevax is the 14th COVID vaccine to receive the WHO EUL.

Texas researchers licensed its vaccine technology for making the SARS-CoV-2 receptor binding domain (RBD) protein to India-based Biological E Limited in 2020. The company scaled up manufacturing and advanced Corbevax through clinical trials. In 2022, Indian regulators granted the vaccine emergency use authorization, first as a 2-dose primary series, and then for use as a booster.

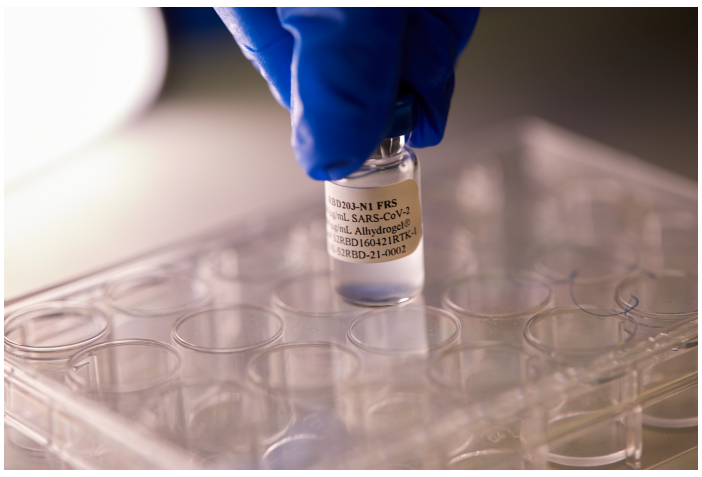


Photo: Courtesy of Texas Children's Hospital

100 million doses administered

In a **press release**, Texas Children's Hospital said 100 million doses of Corbevax have been administered in India. The vaccine is made on a platform that uses a *Pichia pastoris* yeast strain to express the RBD protein of SARS-CoV-2, used as an antigen and optimized with an adjuvant, or immune-booster.

Mark Wallace, chief executive officer of Texas Children's Hospital, said vaccine developers have provided non-exclusive licensing to the yeast strain, which allows other scientists to develop effective, low-cost vaccines. "We continue our mission to support global vaccine accessibility and availability," he said.

Peter Hotez, MD, PhD, with the Center for Vaccine Development at Texas Children's Hospital and part of the team that developed the vaccine, said, "Achieving approval under WHO's EUL procedure represents an important step toward our goal of helping development of low-cost vaccines for the world's most vulnerable populations."

Trial finds short course of antibiotics non-inferior for ventilator-associated pneumonia

News brief | Today at 4:28 a.m.

Chris Dall, MA

Topics: Antimicrobial Stewardship, Pneumonia

A randomized clinical trial conducted in three Asian countries found that a shorter, individualized course of antibiotics guided by clinical response was non-inferior to usual care for patients with ventilator-associated pneumonia (VAP), researchers reported yesterday in *The Lancet Respiratory Medicine.*

Pong Moji / iStock

The **trial**, conducted in 39 intensive care units at six hospitals in Nepal, Singapore, and Thailand, enrolled VAP patients who had been mechanically ventilated for 48 hours and were administered culture-directed antibiotics. Patients were assessed until fever resolution for 48 hours and hemodynamic stability, then randomly assigned to individualized short-course treatment (7 days or less) or usual care (8 days or more). The primary outcome was a 60-day composite end point of death or pneumonia recurrence, with a prespecified non-inferiority margin of 12%.

Important results for lower-resource settings

A total of 461 patients (median age 64 years, 39% female) were enrolled, with 232 randomized to the short-course treatment group and 229 to the usual-care group. Median antibiotic treatment duration for index episodes of VAP was 6 days in the short-course group and 14 days in the usual-care group. In the intention-to-treat population (460 patients), 41% of patients in the short-course group met the primary end point, compared with 44% in the usual-care group, for an absolute risk difference of –3% (one-sided 95% confidence interval [CI], −∞ to 5%).

The results were similar in the per-protocol population. Although non-inferiority was met in both analyses, superiority compared with usual care was not established.

In the per-protocol population, antibiotic side effects occurred in 8% of patients in the short-course group, compared with 38% in the usual-care group (absolute risk difference, –31%; 95% CI, –37% to –25%).

The investigators say that the results are noteworthy, because very few trials of antibiotic treatment for VAP have been conducted in low- and middle-income settings, where high rates of VAP are a major driver of antibiotic use and contribute to the presence of multidrug-resistant organisms.

"This strategy based on simple parameters is readily applicable in low-income and middle-income countries and could have a considerable impact on reducing overall antibiotic prescribing, potentially curbing the spread of antimicrobial resistance among the most vulnerable patients," they wrote.

Stewardship intervention linked to less antibiotic use in those with blood cancer

News brief | Today at 4:25 a.m.

Chris Dall, MA

Topics: Antimicrobial Stewardship

A multifaceted antimicrobial stewardship (AMS) intervention in the hematology department of a French hospital was associated with a significant decrease in overall antibiotic consumption in patients with blood cancer, **researchers reported** last week in *Antimicrobial Resistance & Infection Control.*

The intervention, implemented in November 2021 in the hematology department of an 1,800-bed university hospital in Nice, involved new local antibiotic therapy guidelines for patients with febrile neutropenia, which is common in patients who have malignant blood cancer and are undergoing intensive chemotherapy. It also included educational meetings with medical residents, patient-level review of all antibiotic prescriptions conducted twice a week with the hematology and AMS teams, and patient-specific antibiotic recommendations by the AMS team. To assess the impact of the intervention, researchers at the hospital compared overall antibiotic consumption during hospital stay in the intervention and pre-intervention periods.

Comparing 57 admissions in the intervention period with 56 in the pre-intervention period, the researchers found a significant decline in overall antibiotic consumption (median 20 days of therapy [DOT] per 1,000 hospital days vs 28 days), carbapenem consumption (median DOT 5.5 vs 9 days), and anti-resistant gram-positive agent consumption (median DOT 8 vs 11.5 days). No statistical difference was observed in the rates of intensive care unit admission (9% in each period) and 30-day mortality (5% vs 0%).

Collaborative approach

The study authors say the decline in overall antibiotic consumption was related to the high application of de-escalation and discontinuation of empiric antibiotic therapy during the intervention period (77%, compared with 8% in the pre-intervention period), which they attribute to the AMS intervention's collaborative approach, regular face-to-face meetings, and ongoing feedback.

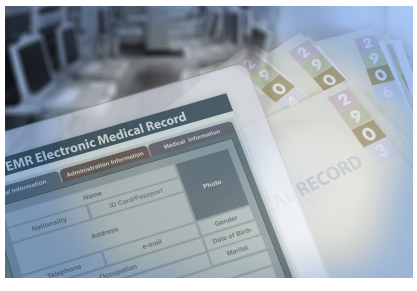
"These results suggest that AMS interventions, based on multidisciplinary collaboration and personalized clinical recommendations, are a safe and effective tool to optimize the quality of antibiotic prescribing and fever management in high-risk neutropenic patients," they wrote.

Primary care physicians' electronic workload grew during pandemic

News brief | Today at 4:15 a.m.

Stephanie Soucheray, MA

Topics: Misc Emerging Topics



pandpstock001/ iStock

A new study shows primary care providers' (PCPs') electronic workload was already growing when the pandemic hit, and continued to increase 3 years later.

The study, published yesterday in the *Annals of Family Medicine*, suggests PCPs may be at risk from burnout considering the high after-hours demand to complete electronic health records (EHR) and answer patient email messages after clinic hours.

The study was based on EHR use by 141 academic PCPs practicing family medicine, internal medicine, and general pediatrics within the University of Wisconsin-Madison health system during four periods: May 2019 to February 2020; June 2020 to March 2021; May 2021 to March 2022; and April 2022 to March 2023.

Over the course of the study period, average daily use of three electronic message systems increased, including MyChart messages (+5.4 messages, 55.5%), prescription refills (+2.3 messages, 19.5%), and eConsults (+0.12 messages, 61.0%).

30 more minutes on EHR per day

Time spent on EHR and patient messages outside of clinic hours also increased by 6.4 minutes (8.2%) on days with scheduled appointments and 13.6 minutes (19.9%) on days without scheduled appointments. For PCPs, EHR tasks per 8-hour clinic days took almost 30 more minutes in April 2022 to March 2023 compared with the pre-pandemic period, increasing by 7.8%.

> **The rapid shift to virtual care at the onset of the COVID-19 pandemic likely influenced patient expectations .**

"The rapid shift to virtual care at the onset of the COVID-19 pandemic likely influenced patient expectations regarding telemedicine and portal access, and some patients may expect same-day responses directly from their PCP in lieu of an in-person or telemedicine visit," the authors wrote. "It is imperative health systems develop strategies to change the overall EHR workload trajectory to minimize PCPs' occupational stress."

Measles activity expands rapidly in Europe, Kazakhstan worst affected

News brief | Today at 3:28 a.m.

Lisa Schnirring

Topics: Measles

Measles activity is expanding rapidly across Europe, with Kazakhstan the hardest-hit country, the World Health Organization (WHO) European regional office **said today**, warning that large numbers of susceptible children who missed doses of measles-containing vaccine during the COVID-19 pandemic is fueling the outbreaks.

Today's statement follows the group's warning **last month** about an alarming rise in measles cases in the WHO European region (which includes parts of Asia), reflecting a more than 30-fold rise in 2023 compared to 2022. WHO Europe said more than 42,200 cases from 41 countries were reported for 2023, of which 13,677 were in Kazakhstan. Of the country's cases, 65% occurred in children younger than 5 years old and 70% occurred in people unvaccinated against measles.

CDC Molly Kurnit, MPH

Kazakhstan's health minister, Azhar Giniyat, MD, said more than 2,100 children are currently hospitalized for measles, 27 of them in serious condition. The country's response actions include isolating confirmed case-patients, vaccinating contacts, providing supplemental and catch-up vaccination, and initiating educational efforts. The government has bought 1.5 million more doses of measles, mumps, and rubella (MMR) vaccines.

In its latest **surveillance update**, WHO Europe said other countries are reporting high case numbers. including Russia, Kyrgyzstan, Turkey, Azerbaijan, Romania, and Uzbekistan.

UK officials warn of further outbreaks

UK health officials late last week warned that outbreaks in the West Midlands could spread to other towns and cities unless urgent steps are taken to boost MMR vaccine uptake in at-risk areas. In a **statement**, the Health Security Agency said 216 confirmed cases and 103 probable cases were reported from the West Midlands since October 2023, mostly from Birmingham and mostly involving children younger than 10.

ALL BRIEFS

IN CASE YOU MISSED IT

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Signs are encouraging, though activity sometimes rises again after the holiday period.

Lisa Schnirring | January 20, 2024