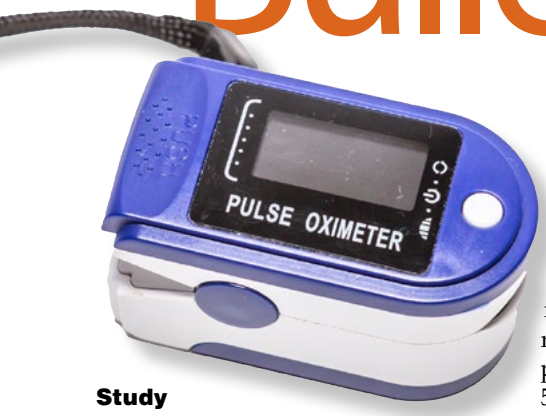
BulletinToday



Study confirms racial bias with pulse oximeters

A new study in *JAMA Pediatrics* published March 20, 2023, suggests that pulse oximetry overestimated arterial oxygen saturation in Black children.

Among the study cohort of 774 white and Black children, a discordant finding of normoxemia by peripheral oxygen saturation levels on pulse oximetry (SpO_2 ≥92%), or a false negative, reached 12% of Black versus 4% of white patients. These children had true hypoxemia according to directly measured arterial blood oxygen saturation (SaO_2 <88%). However, among patients with normal SpO_2 readings, 5% of Black children and 1% of white children turned out to have hypoxemia when measured arterially.

"The discrepancy has been attributed to light absorption properties of melanin," wrote the study authors. "Race is an imperfect proxy for skin pigmentation with the inherent assumption that Black or African American patients had darker skin and more melanin than white patients."

Researchers suggest that future studies in children should prospectively evaluate the association between SpO_2 and SaO_2 with reliable, direct measurement of skin pigmentation.

Some previous studies conducted during the pandemic suggested that Black patients with COVID-19 may have experienced delays in care due to potentially inaccurate readings.

Back in November 2022 at a meeting to discuss ongoing concerns that pulse oximeters may be less accurate in individuals with darker skin pigmentations, an FDA panel said pulse oximeters are less accurate in patients with darker skin, and they urged FDA to notify patients and providers about the issue and recommend that manufacturers correct the discrepancy. ■

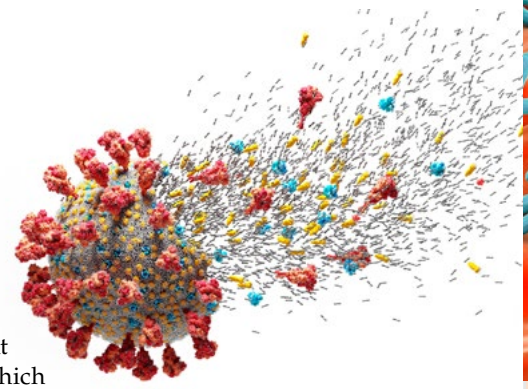
Statin alternative joins drugs that could reduce heart attack risk

A new study published March 4, 2023, in *NEJM* found that bempedoic acid (Nexletol—Esperion Therapeutics) modestly reduced the risk of heart attacks, strokes, and other complications from heart disease. However, it did not reduce the overall mortality rate. Bempedoic acid was approved by FDA 3 years ago to reduce low-density lipoprotein (LDL) levels.

The nearly 14,000 study participants included those at high risk for a heart attack or stroke who were randomly assigned to take bempedoic acid or a placebo. Their average LDL level was elevated at 139 mg/dL. At the end of the study period, the average LDL level in those taking the drug was 107 mg/dL compared with 136 mg/dL in the patients taking a placebo. After slightly more than 18 months, 819 patients (11.7%) in the bempedoic acid group had one of the heart-related complications. In the placebo group, 927 patients, or 13.3%, had such an event.

John Alexander, MD, a cardiologist at Duke Health, who wrote an accompanying editorial but was not involved in the study, said that the lack of outcome data for bempedoic acid has prompted insurers to generally not cover the drug's cost of about $140 a month.

The trial was funded by Esperion Therapeutics and led by Steven E. Nissen, MD, of the Cleveland Clinic. ■



FDA panel OKs Paxlovid as COVID-19 treatment

An FDA advisory panel backed the use of Pfizer's nirmatrelvir/ritonavir antiviral (Paxlovid) as a treatment for adults with COVID-19 who are at high risk for severe illness. The endorsement is expected to allow the drug, which is available under an EUA, to receive full FDA approval.

Pharmacists are able to order and prescribe the oral antiviral, under certain conditions, for eligible patients who have COVID-19.

The advisory panel voted 16–1 after FDA issued a new evaluation indicating that the drug reduced hospitalization and death among both unvaccinated and vaccinated people with COVID-19. Using data on COVID-19 rates in January 2023, agency researchers estimated the drug could "lead to 1,500 lives saved and 13,000 hospitalizations averted each week in the United States."

FDA's evaluation did find evidence of rebound among patients receiving the treatment. However, the data also indicated that some patients who did not receive the antiviral also experienced rebound. FDA said there was no noticeable difference in rebound rates between the two groups, and that rebound had no effect on the risk of developing severe illness. ■

Telehealth services during pandemic seemed to reduce fatal overdose risk

A new study in *JAMA Psychiatry* published March 29, 2023, shows that the wider availability of opioid use disorder (OUD)–related telehealth services and medications during the COVID-19 pandemic led to a reduced likelihood of fatal drug overdoses among Medicare beneficiaries.

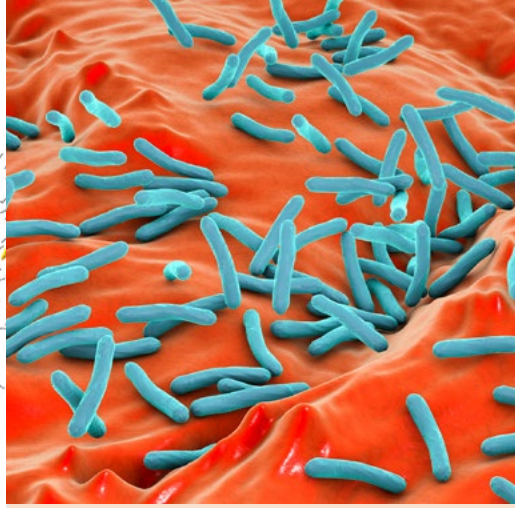
"The results of this study add to the growing research documenting the benefits of expanding the use of telehealth services for people with opioid use disorder, as well as the need to improve retention and access to medication treatment for opioid use disorder," said lead author of the study Christopher Jones, PharmD, director of the National Center for Injury Prevention and Control at CDC. "The findings form this collaborative study also highlight the importance of working across agencies to identify successfully strategies to address and get ahead of the constantly evolving overdose crisis."

For the study, researchers from CDC, CMS, and NIH examined data from two cohorts of Medicare beneficiaries to assess the use of OUD-related telehealth services, use of medications for OUD, and fatal overdoses before and during the COVID-19 pandemic.

They found that Medicare beneficiaries who commenced a new episode of OUD-related care during the pandemic and received OUD-related telehealth services had a 33% lower risk of fatal drug overdose. Medicare beneficiaries who received medications for OUD from opioid treatment programs or who received buprenorphine in office-based settings also experienced a reduced likelihood of a fatal drug overdose of 59% and 38%, respectively.

While all-cause mortality and drug overdose mortality were higher in the pandemic cohort compared with the pre-pandemic cohort, the percentage of deaths due to a drug overdose were similar between the two cohorts.

The study authors noted that just 1 in 5 Medicare beneficiaries in the pandemic cohort received OUD-related telehealth services, and only 1 in 8 received medications for OUD. These findings suggest the need for continued use of these potentially life-saving interventions across clinical settings. ■



Tuberculosis cases increased again in 2022, says CDC

New CDC data reveal that U.S. tuberculosis (TB) cases totaled 8,300 last year, an increase of 5%. CDC is urging communities at greater risk and health care providers to "Think. Test. Treat TB."

Data show that TB cases rose in 2022, although they did not return to pre–COVID-19 pandemic levels. Some public health officials were worried about the effect of missed or delayed diagnoses of TB disease in 2020, during which cases fell 20%. CDC's data now point to a rebound in cases 2 years later.

CDC noted that TB cases in children aged 4 years and younger tend to result from recent transmission rather than reactivation of latent TB infection.

CDC also advises that incarcerated individuals should be screened upon entry and yearly, as well as if they exhibit TB symptoms in a setting that raises the likelihood of outbreaks.

People from certain racial and ethnic groups are also at greater risk for TB, but recent innovations have made treatment more accessible. Today's TB treatment regimens are also shorter.

"For the second year in a row, TB disease cases in the U.S. have continued to rise, with concerning increases among young children and other groups at increased risk for TB disease. Communities, providers, and public health partners must work together to make sure we are reaching the right people with testing and treatment, so we can prevent and stop the spread of TB," said Philip LoBue, MD, director of CDC's Division of Tuberculosis Elimination, in a press statement. ■