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Medicine Update

WHO UPDATES NOMENCLATURE FOR PATHOGENS TRANSMITTED THROUGH AIR

The World Health Organization (WHO) has published a technical consultation report with updated terminology for air-borne pathogens such as coronavirus disease 2019 (COVID-19), tuberculosis (TB), influenza, measles, Middle East respiratory syndrome (MERS), and severe acute respiratory syndrome (SARS). The term "*infectious respiratory particles*" or IRPs should be used to describe the pathogen containing infectious particles released during talking, breathing, sneezing, or coughing. Now there is no threshold of particle size as was prevalent earlier, when 'aerosols' (generally smaller particles), and 'droplets' (generally larger particles) were being used. Transmission through the air is now described as *airborne transmission or inhalation* (when the IRPs are exhaled into the air and inhaled by another person) and *direct deposition* (when the exhaled IRPs are directly deposited on the mouth, nose, or eyes another person in close proximity)… (*Source: WHO. Apr. 18, 2024*).

LIDOCAINE NERVE BLOCK EFFECTIVELY RELIEVE ACUTE STATUS MIGRAINOSUS IN CHILDREN

Results of a randomized controlled trial presented at the AAN 2024 Annual meeting show that children with severe, resistant migraine headaches "acute status migrainosus" are relieved by 2% lidocaine injections into the greater occipital nerve. In the lidocaine group, 69% of patients achieved a 2-point reduction in pain, compared to 34% in the saline group… (*Source: Medscape. Apr. 22, 2024*).

THE FIRST CAR T-CELL TRIAL FOR PEDIATRIC LUPUS GETS FDA APPROVAL

REACT-01 (Reversing Autoimmunity through Cell Therapy), the first clinical trial for chimeric antigen receptor (CAR) T-cell therapy in children with systemic lupus erythematosus has received the US FDA go ahead. The trial will be conducted at the Seattle Children's Hospital in Washington state… (*Source: Medscape. Apr. 10, 2024*).

AGA BEST PRACTICE ADVICE FOR A HIGH-QUALITY UPPER ENDOSCOPY EXAM

The pre- and post-endoscopy deliberations with the patient must be meticulously documented. This and other best practice statements, which include ensuring that esophagogastoduodenoscopy (EGD) is being performed for the right indication, address intra- and post-procedure recommendations to optimize the procedure have been published in *Clinical Gastroenterology and Hepatology*… (*Source: Medscape. Apr. 19, 2024*).

NIGERIA BECOMES THE FIRST COUNTRY TO EMPLOY A 5-IN-1 VACCINE AGAINST MENINGITIS

Nigeria has made history by being the first nation to implement Men5CV, a new WHO recommended vaccine against five major strains of the meningococcus bacteria (A, C, W, Y, and X) in a single dose. Situated in the African Meningitis Belt, Nigeria is one of the 26 nations in Africa where meningitis is hyperendemic… (*Source: WHO. Apr. 12, 2024*).

Preventive PCI Prevents Cardiac Events in Patients with High-Risk Coronary Plaques

In the PREVENT trial, patients with high-risk coronary plaques at risk of rupturing and who underwent preventive percutaneous coronary intervention (PCI) reduced their risk of experience the composite primary end point of cardiac death, heart attack in the target vessel, revascularization due to ischemia in the target vessel or hospitalization for unstable or progressive chest pain compared to those who received only medications… (*Source: ACC News. Apr. 9, 2024*).

ALECTINIB APPROVED AS ADJUVANT TREATMENT FOR ALK-POSITIVE NON-SMALL CELL LUNG CANCER

After tumor resection, patients with anaplastic lymphoma kinase (ALK)-positive non-small cell lung cancer (NSCLC) may receive adjuvant treatment with alectinib, recently approved by the US Food and Drug Administration (FDA). Hepatotoxicity, constipation, myalgia, COVID-19, fatigue, rash, and cough were the most frequent side effects among patients taking alectinib. It should be taken orally twice daily with food in doses of 600 mg for 2 years, or until the disease recurs or the toxicity becomes intolerable … (*Source: US FDA. Apr. 18, 2024*).

WHO PREQUALIFIES A NOVEL ORAL CHOLERA VACCINE

The WHO has prequalified Euvichol-S, a novel inactivated oral cholera vaccine. With a simpler formulation and comparable efficacy to current vaccines, it presents prospects for a quick increase in production capacity. Dr Rogerio Gaspar, Director of the WHO Department for Regulation and Prequalification said, "The new vaccine is the third product of the same family of vaccines we have for cholera in our WHO prequalification list"… (*Source: WHO. Apr. 18, 2024*).

PRACTICING GRATITUDE AND FORGIVENESS GOOD FOR HEART HEALTH

Receiving daily WhatsApp messages or videos focusing on fostering spirituality by "encouraging optimism, gratitude and forgiveness" led to reduction in systolic blood pressure by 7 mmHg in hypertensive individuals. Flow mediated dilation also increased by 4.5% in the intervention group… (*Source: ACC News. Apr. 7, 2024*).

THREE INDICATIONS FOR A NEW ANTIBIOTIC

Injectable ceftobiprole medocaril, available as Zevtera, has been accorded FDA approval for the treatment of adults with *Staphylococcus aureus* bacteremia and acute bacterial skin and skin structure infections. It is also approved for patients, aged 3 months to <18 years, with community-acquired bacterial pneumonia.

The Agency has cautioned about increased mortality in cases of ventilator-associated bacterial pneumonia… (*Source: US FDA. Apr. 3, 2024*).

ONE IN FOUR RHEUMATOID ARTHRITIS PATIENTS WITH STAPH BACTEREMIA DEVELOP OSTEOARTICULAR INFECTIONS

Patients with rheumatoid arthritis (RA) face twice the risk of osteoarticular infections (23.1%) such as septic arthritis, spondylitis, osteomyelitis, psoas muscle abscess, or prosthetic joint infection after *S. aureus* bacteremia, compared to those who do not have RA (12.5%).

However, all-cause mortality was comparable between the two groups (35.4% vs. 33.9%, respectively... (*Source: Rheumatology. March 9, 2024*).

STUDY LINKS *HELICOBACTER PYLORI* TO COLORECTAL CANCER

Helicobacter pylori-positive patients may have an 18% higher risk for colorectal cancer (CRC) (adjusted hazard ratio [aHR] 1.18) and 12% (aHR 1.12) higher risk of fatal disease compared to those who were *H. pylori* negative. Untreated infection was associated with 23% higher incidence of CRC (aHR 1.23) and 40% higher risk of related mortality (aHR 1.40)… (*Source: J Clin Oncol. March 1, 2024*).

PLOZASIRAN: A NEW PROMISING TREATMENT FOR SEVERE HYPERTRIGLYCERIDEMIA

Use of the investigational drug plozasiran, an APOC3 (apolipoprotein C3) inhibitor, as add-on treatment in patients with severe hypertriglyceridemia resulted in 74% reduction (average) in triglyceride levels, according to the phase 2 SHASTA-2 trial. No safety issues were observed… (*Source: ACC News. Apr. 7, 2024*).

BENZODIAZEPINE USE DURING PREGNANCY INCREASES CHANCES OF MISCARRIAGE

Women who used benzodiazepines during the early stages of pregnancy were 70% more likely to experience miscarriage compared to those who did not use these medications. The odds ratios for miscarriage risk associated with each benzodiazepine type ranged from 1.39 for alprazolam to 2.52 for fludiazepam… (*Source: JAMA Psychiatry. Dec. 27, 2023*).